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## Original Communications

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### THE SURGICAL TREATMENT OF INFANTILE PARALYSIS \*

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The question which one must face at the outset in the consideration of this phase of the subject of to-night's discussion is: When does medical treatment end, and surgical treatment begin?

A canvass of the opinion of the majority of surgeons actively treating the results of this terrible malady, will elicit the fact that most of the cases are handed over to the surgeon too late for him to fulfil one of his chief functions, namely, the prevention of deformity. For this reason, the writer would urge that the cases of infantile paralysis should receive surgical attention much earlier than is generally the case, and would suggest that the medical treatment should end with the acute symptoms, and so soon as the temperature returns to normal and all pain has disappeared the case should be consigned to the surgeon. This time in most cases would be about the end of the third week.

I. One's first efforts should be directed to the preservation and restoration of muscle function.

How can this be attained? Massage here plays a very important role. It is possible by systematic and thorough massage to keep up the nutrition in the muscles which are paralyzed, and stimulate any muscle fibres which are active, to greater activity. This massage is preferably done by the parents because it must be continued over very long periods. If a masseuse is employed

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\* Read before the Academy of Medicine, Toronto, December 1, 1914.



## 2 TREATMENT OF INFANTILE PARALYSIS

the apparent progress is so slight, even after long intervals, that the treatment will be discontinued. The results are negative rather than positive. One cannot see very much improvement under the massage treatment, but if it is discontinued the bad results are apparent. What the father and mother lack in scientific methods they will probably make up in faithfulness.

The massage should be started as soon as the pain has disappeared and should be given twice daily for periods of thirty minutes to one hour—depending upon the extent of the lesion. Mr. Robert Jones, of Liverpool, some time ago pointed out that a large number of muscles failed to regain their power, even after restoration of the nerve cells, because they were permanently overstretched. This feature is undoubtedly a factor in the slowness of recovery of some muscles. Therefore it will assist materially in restoration of function of paralyzed muscles if they are held relaxed and not allowed to stretch even to their limit.

Two illustrations will suffice to show what is meant. In paralysis of the upper arm, the most important function to recover is the abduction, so one devotes great attention to the possible restoration of the deltoid.

It has been demonstrated that this muscle will recover its power in much shorter time if the arm is held abducted at right angles to the trunk and a special splint is made to hold the arm in this position day and night. This apparatus is removable and the massage is carried on daily during its use.

In paralysis of the lower extremity, the power of the quadriceps is the most important. This also will recover most rapidly if the limb is never allowed to flex at the knee, but is held in a completely extended position.

The easiest method of keeping this position is by means of a caliper splint made like a Thomas knee brace, or a double upright splint reaching to the thigh with no joint at the knee. At night a trough splint should be worn to keep the leg extended.

The writer has seen muscle restoration even after two years of apparent complete paralysis, by this constant relaxation.

With an apparatus of this sort, the patient can walk, and besides being easier to care for, the writer feels certain that the effort made to walk and use the muscles of locomotion has a stimulating effect on the nerve cells and increases the possibility of their recovery.

What may be said about the much vaunted electrical treatment? Electricity is unfortunately the *dernier resort* of many members of the profession, and it is used usually by rule of



thumb without any definite method in view; hence faradism, galvanism and static electricity are used indiscriminately.

If we are to avoid the possibility of being classed with the charlatans, we must come to some clearer views on the subject of the treatment of infantile paralysis by electricity. One knows that in the bulk of cases of poliomyelitis the muscles lose all response to faradism within a few weeks, and hence it seems absolutely impossible to hope that one would get any benefit after that by the use of the faradic current. It is equally well known that the galvanic response very often continues, and it seems reasonable to suppose that a moderate amount of utility might be expected from a slowly interrupted galvanic current. A pendulum device might be attached to a galvanic battery so as to interrupt the current at moderate intervals, and this form of electricity might be used; but in the writer's opinion the time spent in this way might, with greater advantage, be spent in massage.

II. One of the most serious conditions resulting from a very extensive paralysis of a limb is the great degree of atrophy. The atrophy is noticeable not only in the soft structures, but in the bones as well, and this atrophy of bone is noticed in the character of the bony tissue, in the narrowed diameter of the bone, and in the decrease in the length. For this reason, the second point that I would call your attention to is the necessity of attempting to combat the atrophy. As the atrophy is generally one of disuse, it stands to reason here again that the massage will be of distinct benefit. I am sure it is within the experience of many of you to see cases of flail paralysis of one limb, which becomes, in the course of three or four years, short to the extent of as many inches. This is a very serious disability and one which is, in large measure, preventable. It has been the writer's experience to see a similar case alongside the one described above, in which the atrophy has been to a large extent prevented, and the shortening diminished to a very moderate amount. For this reason, even if the entire limb is paralyzed, and all hope is abandoned of regaining muscle power, the massage should still be continued during the growing period to assure reasonable blood supply, and thus hope to prevent such shortening.

III. In the third place, treatment should be directed to the prevention of deformities. These, in the upper extremities, are not very serious, but in the lower extremity may be so severe as to be completely disabling. Comparatively few children affected with anterior poliomyelitis escape without the involvement of

#### 4 TREATMENT OF INFANTILE PARALYSIS

one entire extremity. If this happens to be the lower extremity, the most heart-breaking deformities may occur before muscle recovery has reached its limit of improvement.

Starting from above downward, the most constant deformity is fixation and abduction at the thigh. This results from two causes: First, from the fact that the child sits a great deal; the thigh being flexed, this encourages the contraction of the anterior ligaments of the hip. The Tensor fascia femoris muscle and sartorius in the majority of cases escape, and contraction of these muscles materially aids in the flexion and abduction of the thigh. This is a difficult deformity to correct, and for this reason every effort should be made to prevent it. Its prevention is moderately simple. It simply means that a child so afflicted must not be allowed to sit for any length of time. It may be recumbent, or, much better, may be encouraged to lie prone on a hard surface, such as the floor; and it is the writer's practice to tell parents to give such children playthings and picture books on the floor, the child lying on its stomach to play with them. You will readily see how this prevents any flexion contraction at the hips. The same sitting attitude which tends to contraction at the hips, also makes for the shortening of the hamstrings and permanent flexion at the knee. This contraction of the hamstrings obviously keeps the quadriceps on the stretch and prevents the possibility of its recovery. The prevention of recurrence of this condition is quite easy. The child must not be allowed to sit with the knee bent; hence should sit on the floor and on a couch rather than in a chair, or, still better, should have a splint applied to prevent flexion in the early stage.

Probably the most crippling of all of the deformities to the lower extremity are those connected with the feet, and they are produced through several influences. First, gravity tends to produce toe-drop, and permanent toe-drop allows the calf muscles to contract, giving us a distinct equinus deformity. This relaxation of the calf muscles probably is responsible for the much larger number of cases having active muscles of the calf than active extensors on the front of the leg. To prevent this defect one must keep the foot at right angle to the leg. This may be done by operative means, as suggested by Mr. Robert Jones, of Liverpool, who advocates the excision of an elliptical piece of skin in front of the ankle joint of sufficient width, so that when the edges are stitched together they hold the foot fixed at a right angle. It may be argued, of course, that the skin will in course of time stretch again and the deformity recur; but, as a matter



of experience, one finds that the relaxation of the extensor muscles, thus produced, often results in the recovery of these muscles before the skin does become stretched.

The next influence which is to be noted is the lack of balance due to the inequality of muscle pull. For instance, the tibials may not have been paralyzed, or may have recovered early, while the peroneals show no sign of power. This, of course, would result in a varus position from the activity of the tibials unopposed by the peroneals. The reverse of this also might happen—the peroneals being active and the tibials paralyzed, resulting in a valgus deformity. Both of these deformities are hard to prevent absolutely, but with care can be moderately controlled by appropriate splints, if started early.

The remaining deformity is the calcaneus deformity, produced by the active contraction of the extensors unopposed by the paralyzed calf muscles. This can be partially controlled also by elevating the heel of the boot so as to produce a moderate toe-drop.

IV. It happens most frequently that the surgeon is not consulted until the deformities described in the last section have already occurred, so leaving the question of prevention we proceed to a consideration of the correction of deformities.

The flexion at the hip, due to contraction of the structures we have named, is corrected by tenotomy of the tense structures by means of a division of the sartorius at its attachment to the anterior superior spine, and also of the tensor fascia femoris, especially of its anterior portion. After such division, if the child is put on a Bradford frame (simply a frame of gas pipe covered with heavy canvass) which is bowed upward in the middle, it will be quite obvious that a child so placed and fastened on such a frame will have the hips raised to a higher plane than the feet or shoulders, and consequently these previously contracted structures cannot shorten again. After three or four weeks of massage and passive movements, and such suggestions as were spoken of in the preventive treatment, these deformities can be kept from recurring.

Flexions at the knee, if not of long standing, can sometimes be corrected by stretching, and if they have been long continued it will need a tenotomy of the hamstrings. A tenotomy of the internal hamstrings may be done quite safely subcutaneously, but the biceps on the outer side should always be divided by open incision because of the proximity of the external popliteal nerve, which is almost sure to be divided in an attempted subcutaneous tenotomy.

## 6 TREATMENT OF INFANTILE PARALYSIS

In order to relieve the pull of the active hamstrings, and to assist the defective quadriceps, transplantation of the biceps into the patella, or into the tendinous portions of the quadriceps where it joins the patella, has been advocated. This will be considered in a later section in detail with the larger subject of the transplantation of tendons.

The correction of the various deformities of the foot may be accomplished by manual stretching of the shortened structures, or, where necessary, by a tenotomy of such shortened structures. It is obvious, of course, that if these deformities are produced by lack of balance of unopposed muscles, these deformities will recur. They may be, to a degree, prevented by the application of plaster of Paris bandage, or such splints as we have spoken of in previous paragraphs. It is in this field that the greatest advance has been made in the last few years by means of operative interference. In order to avoid the long continuance of splints, which need constant attention to keep them efficient, arthrodesis has been advised and widely practised. The object of this type of operation is to produce an ankylosis of an unstable joint, thus giving a firm foundation. It has been performed at the hip, knee, ankle and astraglo-scapoid joints. The writer feels that this type of operation has distinct usefulness, but to a much more limited extent than was at first hoped. In the hip, an ankylosis produced by flattening the upper surface of the head of the femur and mortising it into a similar flattened surface made in the upper surface of the acetabulum, will result in an ankylosis at the hip, thus giving the possibility of balance while all muscles running from the pelvis to the thigh are paralyzed. It is the general opinion of surgeons of any experience in this department of surgery that any ankylozing operation at the knee is inadvisable, as a much more useful limb can be hoped for by means of a splint with an automatic lock joint at the knee, than can be had by making the limb stiff.

In some deformities of the foot, an ankylosis of the ankle with the foot at right angles, or if the limb is somewhat short, with a slight equinus, will produce a stable foot and enable the patient to get about without apparatus. It is surprising how difficult it is to produce a satisfactory ankylosis, especially in children, and one is constantly finding cases with greater movement after such attempts.

It is quite apparent that arthrodesis can only be affected in children of ten to twelve years of age, and older, because before that time the astragalus is so largely cartilaginous that bony sur-



faces cannot be approximated without destruction of a very large portion of this bone, and a consequent ill-fitting mortise results. In cases of varus deformity, the removal of the head of the astragalus and the posterior articular surface of the scaphoid, in older children, will correct the deformity, and by ankylosis then prevent its recurrence.

The possibility of tendon transplanting was first advocated by Nicoladoni, but never received any adequate attention until taken up actively by Lange, of Munich, and following his work a tremendous impetus was given this type of surgery. It also has been long enough in operation for us to be able to draw definite conclusions as to its possibilities, and as one cannot enter into a detailed consideration of all of the types of tendon transference, a general consideration of the principles involved will be taken up.

First, it has been definitely proven that a tendon cannot be transferred and attached to another tendon with any hope of success, because these tendinous attachments unfortunately stretch, and the deformity recurs. Hence it is now recognized that a tendon so transferred must be attached directly to bone through a hole drilled in its substance, or inserted under the periosteum into a groove in the bone. In cases where the tendon is not sufficiently long to reach such attachment, it may be lengthened by a strand of heavy silk.

In the second place, it has been demonstrated that it is impossible to hope for any results from a transference of a muscle whose cross section is very much smaller than the one whose function it is to take up. For instance, one cannot transfer an active peronei to the os calcis to take the place of the paralyzed calf muscles, because the weight necessary to be lifted would soon overstretch such muscles and they would cease to functionate.

In the third place, one cannot transfer a muscle whose function is normally diametrically opposed to the one whose place it is to fill. For instance, the transference of one of the peroneal tendons, whose function it is to abduct the foot, to take the place of a tibial, whose function it is to adduct the foot, will result in failure. On the other hand, the transference of the attachment of the extensor longus hallucis from its insertion into the proximal phalanx to the head of the first metatarsal, will prove very satisfactory and result in this muscle acting as a dorsi-flexor of the foot instead of the great toe.

For the correction of the calcaneous, or the calcaneo-valgus deformity, the operation of Whitman has proven most satisfac-

## 8 TREATMENT OF INFANTILE PARALYSIS

tory. This consists of the removal of the entire astragalus by a crescentic incision just below the external malleolus, dividing the peroneal tendon and the external lateral ligaments of the foot. Then, by dislocating the foot to the inside, the astragalus is removed, and the internal lateral ligaments separated from the internal malleolus. This allows the displacement of the whole foot backward, so that the articulation of the lower end of the tibia rests upon the anterior end of the os calcis. This brings the centre of gravity more nearly to the middle of the foot and allows the heel to project backward, the posterior surface of the scaphoid impinging upon the anterior surface of the lower end of the tibia. After this operation the foot is put in plaster of Paris with slight toe-drop and fibrous ankylosis results, giving in the majority of instances a most useful foot.

Bradford, Soutter and other members of the Children's Hospital staff of Boston advocate very strongly the introduction of what they call silk ligaments to act as guys for the support of the foot in various paralytic conditions. Thus in cases of straight toe-drop, a heavy silk strand is quilted into the periosteum on the anterior surface of the tibia, and carried down underneath the anterior annular ligament and inserted into a hole drilled in the scaphoid. A similar strand carried from the same place in the tibia again underneath the annular ligament on the outer side, and inserted into the cuboid, can be made to hold the foot at right angles. If the defect is a varus, the outer strand only may be used; or in case of valgus, the inner strand only. This in the hands of these surgeons has been fairly satisfactory.

In the early stage it was found difficult to prevent the silk from cutting out, and this has never been entirely overcome. In other instances, the silk gradually loosened and worked its way to the surface and it had to be removed. It was found by experience—and this point may be found applicable in general surgery as well—that silk of large size simply sterilized by boiling, would extrude itself in nearly all instances, if placed close to the surface. To prevent this, Lange suggested that the silk be boiled in a sublimate solution—1 to 1,000—for half an hour or more, and subsequently boiled in paraffin. It has been the writer's experience, that silk thus prepared will stay permanently buried.

One of the most recent advances in the permanent correction of deformities of the feet has been advocated by my associate, Dr. Gallie, and bids fair to revolutionize the treatment of these troublesome deformities. It consists in the fixation of the proximal portion of the tendon of a paralyzed muscle into a groove in



the bone sufficiently deep to bury it, the tendon and the groove being covered over by the periosteum and fastened by kangaroo suture. This procedure is applicable, of course, only in cases of permanent paralysis, and for this reason would be used only when the muscle had been paralyzed for—say from two to four years. As an illustration of its application, one might consider a case of calcaneus deformity where the calf muscles had been paralyzed sufficiently long to warrant one in feeling that they were permanently destroyed. Through a long incision on the back of the leg alongside the tendo-achillis, the posterior surface of the tibia is exposed just above the ankle joint. The periosteum is incised longitudinally and raised to the extent of one-quarter of an inch on each side. The periosteum being retracted, a groove is made in the bone sufficiently wide and deep to allow the tendo-achillis to be buried. The foot is placed at a right angle and the tendon drawn sufficiently taut to hold it there and then inserted in the groove, the periosteum being brought over the surface of the tendon and stitched to it. The wound is closed and a plaster dressing applied for two months, when firm fixation of the tendon in this position results. It is quite obvious that with the tendon attached to the os calcis below the ankle joint, and to the tibia above the joint, it must prevent the lowering of the heel completely. The application of this principle to any of the deformities is easily worked out.

V. The last point which the writer wishes to consider is the possibility of restoring function to a limb which is practically a flail, but without deformity, by means of apparatus. The wisdom of the amputation of such a member and the substitution of an artificial limb has been debated on many occasions. The bulk of opinion is against this procedure, as in most instances, no matter how flail-like the limb may be, it still is sufficient to act as a core for the application of what may be considered an artificial limb about this. A long support reaching from the foot to the pelvis may be applied, with a stop joint at the ankle to prevent toe-drop, and an automatic lock joint at the knee, which will enable such a patient to get about very comfortably.

### SOME ADVANTAGES OF LITHOLAPAXY OVER LITHOTOMY

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The simplicity of the operation and the few instruments required, have no doubt been responsible for the decided preference shown by surgeons for suprapubic lithotomy against litholapaxy in the treatment of stone in the bladder. Moreover, while no condition can be said to contraindicate lithotomy, there are certain definite contraindications to litholapaxy. The open operation will therefore always be chosen when the diagnosis is for any reason incomplete. In spite of this, the fact remains that in the absence of definite contraindications, litholapaxy is the operation of choice for the relief of vesical calculus.

*Definition.*—By litholapaxy is meant the crushing of a stone or stones in the bladder and their removal through a cannula at the time of operation. Lithotomy is the removal of stones through a suprapubic or perineal incision.

*Technique.*—It might be well here shortly to review the technique of litholapaxy. The patient is prepared by a short course of hexamethylene, and, if necessary, acid sodium phosphate. The urine should be tested for formaldehyde and sufficient of the drug given to keep the test positive.\*

A general anæsthetic is advisable, but not absolutely necessary, the urethra may be anæsthetised with novocaine and the bladder with antipyrine, the crushing carefully done is not painful, but the rise and fall of pressure while the evacuator is used is distinctly so. The patient lies in the dorsal position with the buttocks slightly raised on a cushion; a catheter is passed and the bladder washed out with a solution of boracic acid or oxycyanide of mercury, the catheter is then withdrawn, leaving from four to six ounces of lotion in the bladder. A large steel bougie is passed to facilitate the passage of the acutely beaked lithotrite; the lithotrite well lubricated is then passed into the bladder and the handle raised, the beak now lies in the post trigonal region, the lowest part of the bladder in the position of the patient. On

\* To a test tube half filled with urine add one or two drops each of solutions of sodium nitroprusside, 1 per cent., and phenylhydrazin hydrochloride 1 per cent.; mix; add a little 30 per cent. solution of sodium hydrate. A green color is produced if formalin is present. Should the test be negative, add to a fresh sample of urine a few drops of 25 per cent. sulphuric acid; boil (this splits any hexamethylene excreted unchanged into formalin); now cool and repeat the test. The first test tells if formalin is excreted, the second if unchanged hexamethylene is coming through.



opening the blades the stone rolls in, on closing them again it is caught, and is then crushed. Without altering the position of the lithotrite all the fragments which can be caught are crushed in succession; the bladder is then systematically "searched" for fragments. When all have been crushed the lithotrite is replaced by the largest evacuating cannula the meatus will admit, the bulb is attached and alternately pressed and relaxed, thereby sucking the fragments from the bladder. Should any fragment be too large to pass it will give a characteristic "click" in the eye of the cannula, the lithotrite is then reintroduced and the fragment crushed. The stuttering click produced by the mucous membrane when the eye of the cannula is approached too near the bladder wall, must not be confused with that caused by a stone. When all fragments have been removed a catheter is tied in for one or two days, or in a case of bad cystitis for longer.

*Shock.*—The postoperative shock is slight, and urethral fever is rare if a catheter is tied in at the conclusion of the operation.

*Advantages.*—The following are the main arguments in favour of the operation:—

1. A stay in hospital for four or five days as against three weeks when the open operation is done.

2. The patient is spared the discomfort of a wound from which urine dribbles continuously, either into an apparatus prone to leak or straight into the dressing.

3. In the event of a stone recurring, which not infrequently happens, a second or third litholapaxy is no more difficult than the first, whereas, with each succeeding suprapubic operation, scar-tissue and adhesions render the operation more difficult and even dangerous.

4. The patient's dread of "the knife" is respected.

No advantages can be given for the open operation which will offset these.

*The operation is contraindicated in the following conditions:—*

*Contraindications.*—Litholapaxy cannot be performed:—

1. When a stone is so fixed in the posterior urethra that it cannot be pushed back into the bladder; perineal lithotomy must be performed.

2. When the stone is too large to be gripped by the lithotrite.

3. When the stone is encysted in a sacculus or a congenital diverticulum.

1. Marked enlargement of the prostate.

2. Congenital diverticulum accompanied by bad cystitis.

3. When marked pyelonephritis is present.

4. When the bladder is the site of malignant or papillomatous growths.

The presence or absence of these conditions is proved and the character of the stone and bladder wall determined by including a careful cystoscopic examination in the general examination of the patient. No anæsthetic is required for this and subsequent accidents due to faulty or incomplete diagnosis are avoided.

One might here point out the superiority of the cystoscope over the sound in examining the interior of the bladder; the author has twice seen a malignant growth of the bladder badly mangled, by a surgeon expert with the sound, who used it under the mistaken idea that the pain, frequency and hæmaturia were due to a stone; as a result in each case the patient was confined to bed with severe hæmorrhage for over a week, subsequent cystoscopy revealing, without further injury, a non-operable malignant growth of the base of the bladder. Further, a growth thickly covered by phosphates will often, when sounded, feel like a calculus, although of course it always holds the same position in the bladder. Stones in diverticula or sacculi or lying in a deep post prostatic pouch cannot be reached by the sound.

*Complications of vesical calculus which do not contraindicate litholapaxy:—*

1. Urethral stricture. The lithotrite of course cannot be passed through the stricture; the correct sequence is to divide the stricture by internal urethrotomy and tie in a catheter for five or six days, then proceed to the litholapaxy. It is better to give the urethral wound time to heal than to risk a urethral fever by rubbing the lithotrite and evacuator over it.

2. Severe cystitis, when due to the calculus and not to pyelonephritis or to urine stagnating in a diverticulum is no contraindication, as it will clear up when the stone is removed.

3. Very hard and very soft stones are said to contraindicate litholapaxy; this is not so. A well-made lithotrite will crush the hardest oxalate stone, and if the jaws are of good shape will not clog with the most pultaceous phosphatic one.

*Dangers of the operation.*—Accidents will not occur if the case is correctly diagnosed and the technique carefully followed. Cases have been recorded in which the bladder was perforated at the time of the operation and others where signs of perivesical infection appeared four or five days after the operation. The latter cases were probably due to the bladder wall being caught and crushed in the jaws of the lithotrite, which may happen if



too small a quantity of lotion be used. Ascending pyelonephritis may also supervene if the bladder be infected and neglected.

The best argument that the operation in skilled hands is a safe one, is the fact that it has been successfully performed on a male child aged 15 months by Thomson Walker and on a child aged 18 months by Freyer.

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## THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS\*

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BY J. SEYMOUR EMANS, A.M., M.D., RAINBOW LAKE, N.Y.

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The writer recently examined the history charts of 240 adult cases of pulmonary tuberculosis, the most of whom were treated by him at Rainbow Sanatorium in the Adirondacks. Of these only 17 per cent. were admitted in the incipient stage, while thirty-two per cent. were moderately advanced and fifty-one per cent. far advanced. An examination of the records of 209 patients discharged from the Sanatorium showed that all treated, early, were cured, or much improved in health.

Here is the astonishing fact, that 100 per cent. of the patients who came in the incipient stage of a disease, in the past years thought incurable, all either got well or practically so. Here is the deplorable fact, that only 17 per cent. came when permanent benefit was almost certain. Of the 32 per cent. of moderately advanced cases only 1.50 per cent. were cured, a few arrested, many improved and a quarter of them received no benefit. Of the 51 per cent. of far advanced cases none were cured, a few had their disease arrested, about half improved temporarily, and the rest either died or were going on to a fatal termination.

We are dealing with a disease which kills more people than any other in the world, yet, almost no one should die with it if it is recognized early and properly treated.

Why is it not recognized, who is at fault?

Dr. Ethan A. Gray, in the *A. M. A. Journal* of Jan. 27, 1912, states that of a series of forty-five cases, all of whom had been under the care of one or more physicians before coming to him, "twenty-six were not recognized, or were recognized only when the diagnosis was obvious to the casual observer."

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\* Read at the Annual Meeting of the Alumni of the New York Post-Graduate Hospital, June 27, 1914.

## 14 DIAGNOSIS OF PULMONARY TUBERCULOSIS

The three means of making a diagnosis he considered most important and indispensable were:

1. Physical examination of the chest.
2. Determination of the existence or non-existence of fever.
3. Examination of the sputum for tubercle bacilli.

The writer examined the applications of 248 cases admitted to Rainbow Sanatorium. Of these, 127 were marked incipient, 116 moderately advanced, and only 5 far advanced. An examination of the history charts of these patients showed—40 were incipient, 87 moderately advanced and 121 far advanced. In only 6 cases did the application show the case worse than the chart. Of these, 5 marked moderately advanced were incipient, and 1 far advanced was moderately advanced.

Of 127 cases marked incipient only 40 were really so. Only 5 were marked far advanced, yet 121 were found in that stage, cases marked incipient dying in 8 days to a few weeks. Other cases marked moderately advanced dying in from 1 to 8 weeks, shows a great lack of ability to make a correct diagnosis or a great carelessness.

It is true that sometimes the disease may become well advanced before the patient suspects his condition and goes to a physician. This is his misfortune. It is also more often true that when the patient does go to the physician in time, his trouble is far advanced before the physician recognizes it.

To remedy this serious condition of affairs, it may be well to refresh our minds with some of the aids to diagnosis. We may start with these three facts in mind:

1. Nearly every child reaching the age of fourteen years is already infected with tuberculosis.
2. One person in every nine dies with tuberculosis.
3. Nine out of every ten could be saved if an early diagnosis were made and proper treatment followed.

In view of these facts, that nearly all of us have been infected, many of us will die with the disease and most of us could escape, it is most important that we have the disease constantly in mind so as to recognize it and prevent the fatal outcome.

Phthisis runs an intermittent course and at first may be overlooked, as the slight attacks subside for a time. Yet, it is almost always possible to make a diagnosis when the patient feels ill enough to see a physician. Now is the time the physician should have the medical training and patience to hunt for and find the disease in its incipency, which is practically the only curable stage.



## DIAGNOSIS OF PULMONARY TUBERCULOSIS 15

The most important thing is to know when to suspect the presence of tuberculosis.

The writer noted the onset symptoms of 250 cases of which he has records and found them: catarrhal 50 per cent.; insidious 26.4 per cent.; pleuritic, 11.2 per cent.; hæmorrhagic, 7.2 per cent.; pneumonic, 5.2 per cent.

Hæmorrhagic cases are most certainly tuberculous. Pleuritic are very apt to be: Clive Rivere claims that 85 per cent. develop tuberculosis within five years. Cough or expectoration (catarrhal), even if slight, lasting over two months is very suspicious. Adding these three percentages of the above we have 68.4 per cent., which symptoms should lead any physician to look for tuberculosis.

We might add some of the pneumonic percentages, as no doubt some of the pneumonias were nothing but pure tubercular attacks. Thus we find that nearly three out of four cases with the above symptoms are likely to be tubercular.

At an early stage it may be impossible to find any changes in the lungs. Other symptoms must be depended on. Family history can furnish us with nothing more than a suspicion. It is better to seek a history of exposure to infection, as it has been stated, childhood is the period of infection and later life the time of super-infection. Inquire about over-work, worry, anything and everything which may have lowered the vital resistance.

*Dyspepsia* is often tuberculous.

*Loss of Weight* early in life has tuberculosis for its most important cause.

*Anæmia*, especially in young women.

*Protracted Convalescence* from other diseases.

*Chills and Sweating* with pains in the chest and joints not much relieved by salicylates.

*Rapid Pulse.* This 90-100 when at rest and no cardiac lesion is often an early symptom.

*Cough* which may be nothing more than a dry hack, which is noticed more often by the patient's friends than by himself, is very suggestive if it lasts many weeks.

*Nervousness and Irritability* are often seen and seem caused by tuberculous toxins.

*Pleurisy.* Jousset found tubercle bacilli in the fluid of every one of twenty-three cases examined. Of cases of pleurisy with effusion followed for a number of years, 47.7 per cent. developed tuberculosis. Of those with dry pleurisy 42 per cent. In cases between the ages of thirty-one and thirty-five years 60.4 per cent.

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*Hæmoptysis* is almost pathognomonic. It comes with the cough, is frothy and mixed with the sputum. Blood streaks and small clots appear for days after a hæmorrhage. It is generally easy to exclude blood from spongy gums and nose bleed. Mitral stenosis, aneurism, and bronchiectasis as causes may be kept in mind.

*Fever.* A rise of temperature between 4 and 9 p.m.

*Tubercle Bacilli in Sputum.* The diagnosis should be made before these are found, for when they are present the case is an "open" one and likely no longer an incipient one.

*Physical Examination.* It is of the utmost importance that the whole chest be uncovered. The clothing should be fastened at the waist so that no muscular contraction is needed to hold them up. The patient should stand or sit with head bent forward in a pose of complete muscular relaxation. In examining the front of the chest the arms should hang loosely by the sides. When examining the back, the arms should be crossed with hands resting near the shoulders. The patient should be shown how to breathe in and out deeply and easily.

*Inspection* is not of great value early in the disease. The "habitus phthisicus" may well be post-tuberculous rather than pre-tuberculous. A "lagging scapula" on inspiration may often be noted early. Drops of sweat rolling down the skin from the axillae are suggestive.

*Percussion* is secondary to auscultation. Still, when skillfully done, may show slight consolidation. When percussing, the middle finger should be used with equal force from the wrist and the weight of the hand. The finger should be bent at right angle and descend vertically as a hammer. It should be done gently and over exactly similar areas of the chest for comparison. Pitch, quality and duration should be noted.

*Palpation.*—With the patient seated and a hand on each side of the neck, thumbs behind and fingers down over the clavicles, delay of movement, limit of expansion, interrupted or jerky movements of the chest may be noted. A rigidity, or spasm of the muscles over the diseased area, has been noted and described by Pottenger. This sign may be of value to one who has had considerable experience, and has a delicate sense of touch.

*Auscultation.*—This is of the greatest importance in making a diagnosis in incipency. Prolonged expiration, harsh or diminished breathing may be noted at one apex or other part of the lung. The one important thing is the presence of rales. These are more apt to be heard at one or both apices, but may be heard



at the top of lobes or bases. Sometimes only in front or only in the back. When rales are heard persistently over a certain circumscribed area they are of the greatest aid in diagnosis. They may be fine or coarse, dry or moist. None may be heard on deep breathing, but when the patient is made to cough they are heard. Sometimes they are heard better when the patient coughs at the end of expiration.

*Larynx*.—Generally this is not affected till the lung signs are marked, but at times changes appear here first. Weakness of the voice or ready tiring, tickling and pricking sensations, huskiness should lead to a chest as well as a laryngeal examination. There may be anæmia or hyperæmia of the larynx, possibly one or both cords will be found red, thickened, and even ulceration extending along the cord.

*Basal Phthisis* is apt to be caused by pleurisy or lobal pneumonia which later becomes chronic.

*X-ray* shows shadows at roots of lungs, blood vessels, and large bronchi, glands of old T. B. which may have existed since childhood. VonBehring regards phthisis as a final stage of a disease acquired in childhood. Disease at the hilus may show before physical examination can find it. It seems to show that often the disease begins there and spreads in a triangular shape to the apex. The situation of the disease explains the pains in the chest and back often when no signs can be found at the apices. Hoffman found with it, disease in both lungs in 114 cases out of 200.

*Tuberculin* is of value as a skin test in childhood, but among adults is of value mostly in making a negative diagnosis.

#### CONCLUSIONS.

1. Pulmonary tuberculosis is certainly curable in its first stage, cured with difficulty in the second, and practically incurable in the third stage.

2. That while it is true that in about 25 per cent. of the cases, the disease begins insidiously, and in some cases the patient does not recognize his condition and go to the physician until his disease is fairly well advanced, yet the majority go in time and give a history and symptoms which should lead to a diagnosis.

3. That among physicians generally, there seems to be a lack of medical training, or painstaking, in making an early diagnosis.

4. That the disease can never be eradicated until early diagnoses are made.

5. That when the diagnosis is made it is a mistaken kindness not to tell the patient his condition at once.

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6. That when the physician is in doubt he should call in some one on whose judgment he can rely.

7. That as a remedy—the public should be still more educated by lecturers, tuberculous exhibits, the newspapers, etc., in order to make them suspect their symptoms and induce them to go to a physician without delay.

8. That in every medical college there should be a special course of lectures on tuberculosis, given by men of ability and large experience, so that the student is early impressed with the diagnostic signs and with the fact that in after life he is to be constantly on the lookout for that disease which is the most fatal of all, and yet the most curable of all, when recognized early.

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### HEADACHE IN DISEASES OF THE EAR, NOSE AND THROAT \*

BY GILBERT ROYCE, M.D.

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Headache is perhaps the commonest symptom associated with diseases of the ear and nose and with certain affections of the throat, yet it is most elusive and the least understood of all the signs pointing to trouble in these regions.

As a localizing symptom it is unreliable, but its presence or absence is of great value when taken with the entire symptom complex.

There is no doubt that in many instances it is not recognized as being associated with disease in the nose, throat or ear, and on the other hand it is referred to these parts when its real origin is to be found elsewhere in the body. Hence the importance of the practitioner being able to make a careful examination of the ear, nose and throat, and so recognize existing abnormalities.

The variability in the response of the subject to irregularities, inflammation and diseased conditions must render difficult the decision that this or that irregularity is producing the pain complained of. In other words what will produce headache in one case seems to be without effect in the other. However, we can say that in acute conditions headache is a fairly constant symptom, but in chronic conditions it may in many instances be absent. We may state generally that the cause of headache in

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\* Read at the Symposium on Headache, Academy of Medicine, Toronto, November 10, 1914.



aural, nasal or pharyngo-laryngeal disease is due to one or more of the following conditions:

(1) Swelling of the mucosa with pressure or irritation of the nerves. (Head colds ethmoiditis.)

(2) Direct contact of the swollen mucosa. (Swelling of the turbinates.)

(3) Negative pressure in connection with sinuses or associated cavities. (Sinusitis.)

(4) Stasis following obstruction of drainage passages. (Sinusitis Mastoiditis.)

(5) Ulceration of the mucosa with involvement of the nerves. (Specific disease.)

(6) Reabsorption of toxins found within associated cavities. (Sinusitis Mastoiditis.)

(7) Conditions causing active congestion of the cranial circulation. (Acute exacerbations, alcohol, tobacco.)

(8) Disturbances in blood or lymph circulation at the base of the brain. (Mastoiditis-labyrinthitis.)

(9) Pressure on nerves by growths of bony deformities of the upper respiratory passages.

Headaches are due mostly to involvement of branches of the fifth nerve, which supplies the mucous membrane in the various passages and sinuses. It may be sharp and neuralgic in character or a heavy, full, benumbed sensation which frequently is confined to definite areas on the skull, depending on the region of the air passages involved, that is it may be frontal, malor, temporal or occipital.

However, definite localization is not always the rule, there being many exceptions, pain over the malor bone is frequently associated with maxillary sinusitis, but it may also be due to dental caries. Pain between the eyes is due to ethmoidal disease, but may also be due to ocular defects; pain in the supra-orbital region to frontal sinusitis, but may also be due to maxillary sinusitis. Pain in the vertex due to sphenoidal and posterior ethmoidal disease, but may be of nervous origin.

As a diagnostic symptom then in connection with nasal or sinus trouble head pains are chiefly of value when taken along with the general symptoms.

Very often head pain, due to nasal or sinus diseases, is of a remittent character and shows periodicity, coming on at certain times of the day and lasting a few hours. It usually commences in the forenoon and after lasting part of the day is followed by com-

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plete cessation. It is intensified by straining, stooping, sudden jars, severe mental work, insomnia, etc.

Conditions in the larynx and pharynx seldom produce headaches per se, as they are usually secondary to general systemic ailments, which of themselves often produce pain in the head.

Nevertheless attacks of tonsillitis or pharyngitis, especially of a very acute character, are productive of headaches of a dull, tense kind, often radiating to the occiput and back of the neck. Chronic swelling and inflammation of the lateral-pharyngeal wall is accompanied in many cases, especially during swallowing, by pain extending through and below the occiput.

Middle ear disease almost invariably produces a dull, tense pain, often throbbing, over the corresponding side of the head, and the more acute and fulminating in character the greater the discomfort. There is also a boring pain felt deep within the ear and this may also be present in inflammation of the cranial and external ear, such as otitis diffuse and circumscribed.

Mastoid disease involving both periosteum and bone cells is accompanied by dull throbbing pain over the mastoid bone and side of the head. There is also a peculiar heavy wooden sensation, which is most marked in acute conditions. When the bone cells act as pus retaining cavities, the pain, though not so severe as in the inflammatory stage, is constant in character and often strictly localized, in fact any inflammatory process involving the hearing mechanism, eustachian tube, middle ear, mastoid or internal ear may produce pain in the head.

If, on the other hand, there are cases where extensive mastoid disease is present, unaccompanied by pain of any kind, a condition which is the case in infectious due to the streptococcus mucosus capsulatus.

To detail the treatment of headaches due to disease of the ear, nose or throat would necessarily entail considerable time, suffice it to say that the cause in each case should be sought for and removed.



## Reports of Societies

### PROCEEDINGS OF THE SECTION OF MEDICINE, ACADEMY OF MEDICINE, TORONTO

The regular meeting of the Section of Medicine which was held on December 8, 1914, was devoted to the presentation and discussion of many interesting cases, which are described below:

#### DISEASES OF THE SKIN.

Dr. D. King Smith, Dr. George Smith, Dr. E. Trow and Dr. W. T. Williams presented eight cases from the Skin Clinic of the Toronto General Hospital. These included examples of epithelioma of the face, lupus vulgaris of the ear, coccogenic sycosis, tuberculosis verrucosa cutis of the foot, lupus erythematosus of the nose, syphilitic ulceration of the arms, and granuloma of the leg. The cases which provoked the most discussion were the two examples of granuloma of the leg. The etiology of both cases was attributed to the taking of bromides. One case had been taking Liebig's fit cure for a year, and the other case had been taking an ordinary bromide mixture for a year. There had not been time to have a Wassermann reaction, as the cases had just come under observation.

Dr. H. B. Anderson said that the Academy was to be congratulated on the splendid array of cases. He said that the colour, loss of tissue, and serpiginous outline of the eruption in one of the cases of granuloma suggested a syphilitic lesion, but at the same time he did not wish to oppose the diagnosis of a bromide eruption. In the other case of granuloma he said he would like to see a section of a piece of the diseased tissue so that growths due to fungi might be excluded.

Dr. Chambers thought that both the cases in question were due to bromides. He said that on one case the lesions were three or four inches in diameter and this was too large for a syphilitic lesion. In the other case there was a nodular lesion covered with crusts, which had evidently been due to miliary abscesses and a lesion of this sort was almost pathognomic of a bromide eruption.

Dr. J. H. McPhedran showed a case of acute psoriasis from St. Michael's Hospital. This patient had come into the hospital for an operation, and following the operation a papular eruption had broken out on the limbs and part of the body. There had

been a previous attack five years ago, and the Wassermann reaction was negative.

Dr. H. B. Anderson said that the lesion when considered in connection with the enlarged epitrochlear and posterior cervical glands made one think of a papular syphilide. However, the negative Wassermann reaction and the history of a previous attack were against the diagnosis of syphilis. The most likely condition was a papular erythema.

#### DISSEMINATED SCLEROSIS.

Dr. Allan Adams next presented a case of disseminated sclerosis in a man of thirty-nine. When first seen three years ago the patient had complained of weakness in the legs. The disease seemed to commence with an attack of influenza in 1906. At this time the patient was confined to bed for one week. During the year following he had to work hard and never felt well. In 1907, he had an epileptiform seizure, in which he lost consciousness. This was followed by another attack of influenza, in which the hair turned grey in scattered areas. The patient then went to the Canary Islands for a holiday, and there developed a form of dysentery called Canary fever. In 1910, he had another epileptiform fit, and in June of the same year had a third attack of influenza. After this he commenced to drag the right foot and felt a certain amount of weakness and unsteadiness in the legs. In September, 1910, there was a fit similar to the previous seizures. Since that time there has been some difficulty in starting micturition.

In the personal history there is nothing of importance. The patient is a heavy smoker, but does not take alcohol in any form. He denies the possibility of venereal infection.

In the family history there is no mention of any nervous diseases. The patient is married, but has no children. The wife is healthy and has had no miscarriages.

Examination, November, 1912:—"Patient is unsteady on his feet and cannot stand unless supported. The gait is spastic and shuffling, with dragging of the toes. There is slight lateral nystagmus. The pupils react to light and accommodate for distance, and the optic discs are normal. There is no atrophy of the muscles and the sensations are undisturbed. The patient is more irritable than formerly and the memory is not so good. The speech is unchanged. The bladder functions are normal. The knee-jerks are brisk, but there is no ankle clonus or extensor response. The urine is normal. The red blood cells are 3,830,000 and the white cells 9,200."



Examination, November 23, 1914:—"There does not seem to be any change in the intellectual functions except a slight loss of memory for recent events. The pupils react normally, and there are no retinal changes. There is a slight slow lateral nystagmus which is not well sustained. The gait is spastic, and, at times, the legs cross in walking. Rombergism is present, but is not marked. Speech is unchanged. There is a fine tremor of the hands. There is no paralysis of any of the muscles, but there is weakness in the movements of the legs and feet. The sensations are normal. The biceps, triceps, and supinator jerks are brisk on both sides. The knee-jerks and Achilles-jerks are extremely active. Patellar clonus is easily elicited and well sustained on both sides. Ankle clonus is present on the right side, but cannot be elicited on the left side. The plantar reflex is extensor in type: the great toes go upwards on stroking the soles of the feet." The Wassermann reaction was taken a week or two before the meeting and was strongly negative.

Dr. Julian Loudon said that there was no doubt that this was a typical case of disseminated sclerosis, and all that was lacking to make it correspond with the classical types was the scanning speech, the double vision, and the marked mental instability. It was important to bear in mind that disseminated sclerosis was not a system disease and for this reason there might be a great variety of symptoms and signs. Spasticity with increase of the tendon reflexes was nearly always present because the pyramidal tracts were very long and vulnerable. They were nearly always invaded or pressed upon in some part of their course by the proliferation of neuroglia. For the same reason there might be ankle clonus, patellar clonus and the extensor type of plantar reflex, as in the present case. He stated that bladder symptoms might come on very early; usually there was difficulty in holding the urine rather than difficulty in starting micturition; and in England, where the taking of tea in the afternoon was a common custom, it was usual for clinicians to ask patients how long it had been since they were able to visit their friends for afternoon tea. The diuretic effect of the tea accentuated the commencing bladder symptoms so that they became troublesome. The Rombergism in this case was probably due to invasion of the posterior columns and cerebellar tracts, but the invasion of the posterior columns had not been extensive enough to cause any objective sensory changes. Another disease which might suggest itself in connection with this case was ataxic paraplegia, which was really only a symptom or sign of underlying diseases, such as anæmia,

diabetes, ergotism and pellagra, which could be easily excluded. Syphilitic meningomyelitis was ruled out by the negative history and negative Wassermann reaction. Cerebellar disease might be suggested by the nystagmus, but was ruled out by the spasticity and the condition of the reflexes and bladder.

Dr. Goldwin Howland wished to draw attention to the attacks of influenza as the cause of the disease in the case under discussion. He considered that the disease was a chronic one, which had followed an acute infection. He thought that many of the cases of disseminated sclerosis were caused by an infection from the throat and tonsils, and believed that improvement or cure might follow the proper treatment of the seat of infection.

#### SCOPOLAMINE AND MORPHINE IN CONFINEMENT.

Dr. Gordon Galley and Dr. W. A. Scott described the method of employing scopolamine and morphine as used by them in the maternity wards of the Toronto General Hospital. The principle was to diminish the sensation of pain by morphine and to produce amnesia by scopolamine. Two cases were shown in order that questions might be asked. Neither case remembered anything that happened during labour, and it had been only with difficulty that either could be made to realize that labour was over. The last fact remembered before labour in either case was the prick of the hypodermic needle. The babies in both cases were in good health and each patient passed through a normal puerperium. Thirty-eight cases had been treated in this manner. In the last fifteen cases there had been no failures in producing the desired state. In twenty-eight cases the results had been excellent. In four cases the results could be classed only as fair because there was a hazy recollection of some pain. Six of the results were failures as far as the pain was concerned. The bad results had possibly been due to the use of inferior samples of scopolamine. The best results were obtained by using the hyoscine hydrobromide tablets prepared by Burroughs, Wellcome & Co. The morphine preparation had been the ordinary hypodermic tablets in use at the hospital. The doses given at the commencement of labour were  $1/6$  of a grain of morphine and  $1/100$  of a grain of hyoscine. The subsequent doses of morphine were never above  $1/12$  of a grain. The average duration of the labours had been six hours from the time of the first injection. The patient was to be kept very quiet in a dark room. Soon after the injection there was a rambling condition of the mind. The memory was tested for recent events, and if it was found to be defective the



patient was considered to be in the proper condition. The face was usually flushed and the pupils dilated. The patient soon fell to sleep, but could be very easily awakened. It was necessary to remain with the patient during the whole of the labour, and therefore required a good amount of time and patience on the part of the obstetrician.

Dr. B. P. Watson, who had seen the cases reported by Dr. Scott and Dr. Galley, said he could confirm all that was stated. He wished to emphasize the fact that the doses must be carefully regulated, for each patient, and said that the manner in which it had been lauded in the lay press was most reprehensible.

Dr. George Graham wished to know if the treatment would do away with the use of a general anæsthetic, such as ether or chloroform.

Dr. John Hunter asked about the psychic disturbances which were sometimes produced by scopolamine and cited a case of his own in which mania had been produced by the use of hyoscyne previous to the administration of a general anæsthetic.

Dr. Arnold Clarkson said that he had known these same drugs to have been administered for the same purpose ten years ago, and stated that they had been discarded because the babies were born dead more frequently than in cases where the drugs had not been used. He said that the late Daniel Clark had used hyoscyne extensively in his asylum work, and that he used to say that there was a great difference in the action of the various samples of the drug. He supposed that more pains were now taken in standardization.

Dr. F. A. Cleland stated that he had recently employed these remedies in two maternity cases, and considered that absolute quietness was essential. He had known the treatment to have been employed in New York years before the Germans had used it in their clinics. The Germans may have improved the method of dosage, but they had not originated the idea of the combined use of these drugs.

Dr. Galley, in replying to the points which had arisen in the discussion, said that a general anæsthetic was still necessary when employing forceps. He also said that the hyoscyne did not have any action in diminishing pain unless employed with morphine. Dr. Scott said that the morphine should be repeated if the patient gave symptoms of coming out of the sleep. In regard to the preparation of hyoscyne he said he understood that Burroughs, Wellcome & Co. grew their own hyoscyamus on certain soil and

gathered it at a certain time of the year, and then carefully standardised it.

#### TACHYCARDIA.

Dr. C. S. McVicar said that he was sorry that his patient had died since the publication of the evening's programme. The patient was a male, age thirty, and a tailor by occupation. He had been a patient in the Hospital for Insane since 1911, and had been suffering from dementia præcox as well as tachycardia. He had had gonorrhœa several times. The Wassermann reaction was negative. He had never had rheumatism, but had very bad teeth. Two years and six months ago he had his first paroxysm of tachycardia with a pulse rate of 180 to 240. At that time there had been slight fever, cyanosis, vomiting, and expectoration of blood. After the attack had lasted for a week the heart dilated and then there was an abrupt cessation of the paroxysm. The pulse rate suddenly dropped from 240 to 72. The pulse rate was uninfluenced by digitalis, atropine, or change of posture. Pressure on the carotid would cause a slowing from 180 to 80 while the pressure lasted. Two years later there was a similar attack which lasted for the same length of time. In the third attack the patient died after the paroxysm had lasted for thirteen days. At the autopsy there was a double hydrothorax and an infarction of one lung. The heart weighed 275 grams. There was an old standing mitral stenosis and hypertrophy of the auricles and right ventricle. Polygraph tracings and electrocardiograms had been taken, but the lantern slides prepared from these were not shown on account of the lantern being out of working order.

Dr. Julian Loudon said that he was sorry that the electrocardiograms could not be seen, as he considered that these had thrown much light on the cases in which he had employed this method of investigation. The electrocardiograms showed that these cases were quite different in origin from the ordinary acceleration of the heart's action which is found in cases of exercise, fever, emotion, and exophthalmic goitre. In the cases just mentioned the electrocardiograms had the normal physiological outline, but in cases of paroxysmal tachycardia the outline was different in the quiescent period from that of the paroxysmal period. The change in this case usually took place in the auricular wave. The auricular wave was usually inverted or distorted in some way. The ventricular complex usually had the normal outline. This went to show that the impulses during the par-



oxysmal period did not originate at the sino-auricular node, but must have arisen in an ectopic centre in the auricular muscle. The condition was really a long series of auricular extra-systoles, and was not the result of a simple disturbance of innervation as was formerly thought. The abrupt change from the natural rate to the rapid rate and vice versa was quite unlike the usual forms of accelerated heart action. Cases of paroxysmal tachycardia of ventricular origin had been described, but were extremely rare.

Dr. Allan Adams described a case of paroxysmal tachycardia in which he had felt the pulse rate suddenly change from a rapid rate to a slow rate. No tracings had been taken.

Dr. H. B. Anderson said that in his observations it was uncommon to find any marked lesions in simple paroxysmal tachycardia as seemed to be present in this case. He was anxious to hear the results of further investigations which Dr. McVicar proposed to carry out on the heart from the present case.

Different types of tachycardia were mentioned and discussed by Dr. A. R. Gordon. He stated that he had taken the electrocardiograms of Dr. McVicar's case and said that during the paroxysmal period the auricular wave was inverted as had been mentioned by Dr. Loudon. The impulses during the period of rapid heart action originated in the auricle, but not at the normal pace-maker.

#### AORTIC ANEURYSMS.

A clinical example of aneurysm of the ascending arch of the aorta was presented by Dr. J. H. McPhedran. The patient was a male, age 53, single, ironworker. In the past he had several attacks of gonorrhœa, and twenty-eight years ago he had syphilis. He had smoked heavily in the past, and had consumed beer to excess. On October 31, 1914, he was suddenly seized with shortness of breath, and was admitted to St. Michael's Hospital on the same day. On examination the patient was propped up in bed and had marked cyanosis of the face. The pupils were equal. The pulsations in the neck were marked, especially on the right. The volume of the right radial artery was greater than that of the left. Dilated venules were evident over the lower costal margin. On inspection of the chest diffuse impulses could be seen in the fifth and sixth spaces in the left anterior axillary line. A heaving impulse could also be seen to the right of the sternum over an area extending from the second to the fifth intercostal spaces. On palpation there were marked systolic and diastolic thrills to the right of the upper half of the sternum.

On percussion at the first rib there was dulness to  $1\frac{1}{2}$  inches on either side of the mid-sternal line. At the second rib this extended  $2\frac{1}{2}$  inches to the right and 3 inches to the left; at the third, 3 inches to the right and 4 to the left; at the fourth about the same; at the fifth  $2\frac{1}{2}$  to the right and 4 to the left; and at the sixth  $5\frac{1}{2}$  to the left.

On auscultation a systolic murmur could be heard at the mitral area. At the aortic area there were systolic and diastolic murmurs. The Wassermann reaction was negative in the blood and cerebrospinal fluid. The patient has improved very much since resting in bed and at present feels quite well.

Another case which was reported by Dr. J. H. McPhedran was an aneurysm of the descending arch of the aorta in a married woman of 38. The symptoms were cough and hoarseness. The patient was supposed to have been infected with syphilis during the first year of her marriage, but had shown no symptoms of disease. The Wassermann reaction was positive. Eight doses of salvarsan were given, and this was followed by treatment with mercury for four months. The Wassermann reaction was still positive.

JULIAN LOUDON,  
*Editor of Section of Medicine.*



## Editorials.

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### LOYALTY AND THE UNIVERSITY OF TORONTO

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It is a delicate and serious matter, especially in these times, to raise any doubts as to the loyalty of any body of men. Col. Geo. T. Denison is a great Imperialist, a singularly able and fair-minded man, and is also a very keen observer. He has expressed the following opinion: "I always felt that the weakest spot in the interests of loyalty was in the University of Toronto." Mr. J. H. Collinson, of Hamilton, writes: "It would seem that the excessive study of German has the baneful effect of clouding the moral vision; at any rate among those who have studied abroad many have allowed their admiration for German methods and German logic to blunt their own patriotism."

These and similar strong statements are now made openly in the daily press. Powerful editorials are being published. The man on the street is talking. The voter outside of Toronto is talking. They say, "We are at war and the university authorities should recognize that fact. Let them be chivalrous towards Germans whose sympathies are German, but let them not waste our money in their chivalry. The Governors of the university hold our money in trust for us." For the present we shall not discuss the words of the man on the street, or the voter of Ontario. We regret that such expressions are used, but the country cannot long ignore them. We desire, however, to point out that the majority of the people outside of the university hold opinions similar to those expressed by Col. Denison and Mr. J. H. Collinson. We

may say, at the same time, that we do not concur. We believe that the students are loyal. We regret that many of them do not accept Col. Denison's Imperialism. Many of them are Radicals; many favor reciprocity with the United States; and some are Socialists. Some of these impetuous young men are not always discreet—indeed very frequently they are foolish. But in this hour of need we believe that Canadian students in the university have followed the example of the members of the British Parliament, and have dropped for the time all petty discussions and bickerings, and are now absolutely united in their loyalty to their King and country. We think the great majority of the teaching staff are loyal, but the foolish action of the little group of professors in the unfortunate Hagarty episode has created a very bad impression.

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#### THE UNIVERSITY OF TORONTO AND HER ALIEN GERMAN PROFESSORS

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The President of the university in his manly and able address, delivered September 29th, spoke in detail with reference to the origin of the war. Among other things he told us: "A gospel of force has been preached in Prussian universities by Prussian professors for the past generation." After the infamous war was forced on the allies by the Kaiserites, 93 of the leading professors of Germany issued a manifesto glorifying Prussian militarism and their wonderful "culture," and making statements, which, according to the *British Medical Journal*, "can only be described as, like Falstaff's lies—gross as a mountain, open, palpable." The journal adds, these "intellectuals" glorifying and exulting Prussian militarism



show themselves to be more odious than the brutes whom they defend. Those professors in Toronto, whose sympathies are in Germany, would probably endorse the manifesto.

President Falconer has apparently forgotten about the "gospel of force," and now defends some of the German professors. There appears to be almost a universal opinion that in doing so he has made a mistake which has caused a feeling of profound dismay among his many friends, who respect him very highly.

We sincerely hope that Sir Edmund Osler will be induced to withdraw his resignation, but at the time of writing the prospects are not very bright. His strength is tremendous, chiefly because, apart from his rank, wealth, and high standing in Parliament, he is trusted by all parties, but especially by those belonging to the Trinity wing, who love and reverence him. Of course, as all know, the utterances of Colonel Wilkie, coming almost from the grave, have produced a profound impression.

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### GERMAN CULTURE

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The majority of Germans in Canada and Southern Germany and Austria are lovable people. Even the professors of Germany, or a large portion of them, have what might be called winning manners. They have, however, sublime confidence in their own culture and absolute contempt for the scientific attainments of all other countries, which according to their ideas are devoid of culture. They have for many long years held a fixed opinion that their great Kaiser, working under the inspiration of the Almighty, was justified in pounding their culture into

other "half civilized countries" by means of the heavy artillery of his invincible army. The pious Kaiser is now very much interested in the imperfectly civilized Britishers.

This German culture has had great influence in educational institutions, especially in the United States and Canada, and to some extent in Great Britain. About forty years ago certain teachers in the universities of the United States were greatly impressed with "German methods." There has been much discussion as to the comparative value of "German methods" and "English methods" of teaching. During these forty years many of the universities of the United States adopted largely the so-called German methods. This German fever extended to Canada about thirty years ago. There was a considerable amount of confusion about these two methods, and a certain amount of absurdity entered into the discussions. The general tendency however in many teaching institutions was to exalt the scientific side and neglect the practical application of science to actual practice.

The University of Toronto has for the last 25 years been developing German ideas and is now the most pro-German university on this continent.

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#### GERMAN PROFESSORS AND BRITISH HONORS

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We learn from the *British Medical Journal* that a surgeon who has lately left Berlin has told that the animosity against the British Empire so violently expressed in the German lay press is reflected in the medical journals. He had ample opportunities to study the psychology of the German medical profession, and states that he is totally incapable of giving



a true picture of the Teutonic feeling towards England. From a psychological point of view these feelings were almost the most interesting features of his visit to Berlin. The "mass action" and the intense hatred of England almost carried him off his feet, and its suggestive force often made it hard for him to keep cool.

In that remarkable "declaration by German professors and men of science," to which we have already referred, we find the following: "Those of us who have received marks of distinction from English universities, academies and societies of scholars do renounce as a matter of national feeling all such honors and the rights attached to them." The *Journal* says this renunciation, which the Germans appear to regard as an act of noble self-sacrifice and a sort of pontifical anathema against Britain, leaves it "quite unimpressed."

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### CITIES AND THE RURAL DISTRICTS

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It is generally understood that Canada like many other countries is becoming a country of large urban centres. A few of us realize the extent of this development. The census returns for the last fifty years show that the populations of cities and towns have increased greatly, while in rural districts they have in many cases decreased materially. In 1881 over 14% of the population was found in towns and cities, while in 1911 the proportion had reached 45% in spite of the great development of agriculture in the Prairie Provinces during the last 15 years. This rush to the cities has greatly increased the difficulties of the housing problem. In many instances houses have to be provided on short notice. To add to the complexity

almost all foreign elements come to the cities. About one-tenth of the population of the cities of Toronto, Hamilton and Brantford, and about one-quarter of the population of Port Arthur and Fort William, are foreigners. As a consequence the house that was once intended for one family now contains two, three or four families, and this overcrowding has degraded the morals of large numbers of people. Overcrowded districts always produce infectious diseases. We are largely quoting from "Conservation of Life," which also states that Sir John Simon, the father of sanitary science in England, has said "To children who are born under its (overcrowding) curse it must be often a baptism of infamy."

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#### MONTREAL GENERAL HOSPITAL

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We believe that there is no hospital in the Dominion of Canada that has accomplished more good in the interests of suffering humanity and medical teaching than the Montreal General Hospital.

We read with very much regret a statement made by Dr. Parke, its Superintendent, December 2nd, of the fact that "Although we cannot conceive it possible that the public will allow the doors of the Montreal General Hospital to be closed our financial position is so critical that we cannot continue operations after the 1st of January unless we get immediate help."

A deputation of the Governors of the Montreal General Hospital, the Notre Dame and the Western Hospitals waited on the Board of Control of Montreal, Nov. 26th, and asked that \$85,000 be granted the three hospitals so that they may be able to continue operations until the crisis is past.



### INOCULATION

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Inoculation of the soldiers on the Toronto Exhibition Grounds against typhoid was commenced Nov. 30th. The operation was performed under the strictest antiseptic precautions. The surgeons have decided to give three inoculations instead of two with so far as possible intervals of five days between. The surgeons who have the work in hand have come to the conclusion that the inoculation of several thousand troops is quite a heavy undertaking.

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### HONORS TO DR. KAISER

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Dr. T. E. Kaiser, of Oshawa, was recently honored by the Department of Militia and Defence on account of service rendered in connection with the building of the Oshawa Armoury, and assistance in connection with the collection of troops, and the Patriotic Fund.

Dr. Kaiser received the following intimation from Ottawa: "Sir, I have the honor by direction to inform you that the Honourable the Minister of Militia and Defence has been pleased to appoint you Honorary Major in the Canadian Militia. This appointment will be included in a *Gazette*, dated the 3rd instant, a copy of which will be forwarded to you in due course. I have the honor to be sir, your obedient servant, Alan S. Palmer, Major A.A.G., for Acting Adjt. General."

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### LOUVAIN

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The University of Louvain which has fallen a sacrifice to the spread of Teutonic culture was founded in 1425. There were 6,000 students in the 16th century when the university was at the height

of its fame. Louvain was, in olden times, and even in recent times, chiefly celebrated as a school of Theology, but it always had a great respect for anatomists on account of the great Andres Vasilius.

The total number of students at Louvain in 1912-13 was 2,855. Among the present medical professors the names of Denis, the Bacteriologist, and Masoin, the Psychiatrist are well known. Dr. Wyon, Professor of Physiology, has recently distinguished himself by his heroic conduct by remaining with his wife among the ruins of Louvain administering to the wounded Germans as well as Belgians. The *London Times* tells us that when all the population of Louvain were informed that every inhabitant of the town must leave immediately in order that the town might be razed to the ground by artillery, Dr. Wyon and his wife decided to remain in order to protect the 150 wounded who could not be removed in time.

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### FOOTBALL AND THE WAR

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Many of the newspapers in Great Britain have objected to the playing of football during the war, claiming that men who are able to play that game should go to the front.

A meeting of delegates, representing eleven professional football clubs of London, November 30, adopted resolutions denouncing the newspaper agitation against football as wholly opposed to English tradition.

The resolution declares, however, that they are prepared to close their grounds simultaneously with the closing of the race courses, golf links, theatres and picture palaces.



At a meeting of English, Scottish, Welsh and Irish professional football associations held in London, Dec. 3rd, it was decided to recommend that international football matches this season be abandoned.

A resolution was then passed stating, "There is no evidence that the playing of football has hindered or is hindering recruiting. Under these circumstances this meeting recommends that except as regards international matches it is not right that football should be suspended."

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### MEDICAL STUDENTS AND THE MEDICAL ARMY CORPS

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Forty-nine members of the graduating class in medicine at the University of Toronto have signified their intention to qualify for certificates as officers for the Army Medical Corps. An arrangement has been made by the Faculty of Medicine with the approval of the University Senate, whereby these students will be released from academic duties for two weeks after the New Year to enable them to attend a provisional school of instruction to be organized by the Army Medical Corps. They will take the course in groups of 20 or thereabouts. When they have graduated and received their licenses to practice they will be eligible then for examinations for subaltern's certificates in the Medical Corps.

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### UNITED STATES AND THE WAR

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Dr. J. William White, Professor of Surgery in the University of Pennsylvania, one of the most highly respected surgeons of the United States, also well known in Canada, expresses in the *New York*

*Tribune* some of his views about the war. He says: "We (the United States) should, at the very least, strengthen the wavering, reassure the doubting, give new hope to the despairing by proclaiming to the world our absolute and unreserved belief of the right and justice of the cause of the allies, and our determination to see to it should the worst come to them, that they shall have our material support, our last dollar, our last bushel of corn, our last drop of blood. For the sake of humanity and all civilization we cannot afford to permit Germany to win, and the surest way to prevent it is to take sides at once."

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#### LORD HALSBURY'S OPINION

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The Earl of Halsbury, of the Privy Council and the House of Lords, lays it down as an axiom, in the *Encyclopedia of the Laws of England*, that "aliens are incapable of enjoying any office or place of trust, either civil or military."

For this proposition, he cites the Act of Settlement of 1700, which reads in part as follows:

"No persons born out of the Kingdoms of England, Scotland, and Ireland, or the Dominions thereunto belonging, shall be capable to be of the Privy Council or a member of either House of Parliament, or to enjoy any office or place of trust either civil or military, etc."

This statute is further explained in a statute of 1714. Our own Dominion Naturalization Act, following almost identically the English Naturalization Act, while providing for property rights of aliens, expressly stipulates:

"Nothing in the two last preceding sections shall qualify an alien for any office or for any municipal,



Parliamentary, or other franchise, or to be an owner of a British ship, nor shall anything herein entitle an alien to any right or privilege as a British subject except such rights and privileges in respect of property as are hereby expressly conferred upon him."

It is said that surely a professorship in the Provincial University must be regarded as an "office."

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### THE LONDON POLYCLINIC

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Many Canadian physicians will learn with regret that the Medical Graduates College and Polyclinic, London, England, founded many years ago by Mr. Jonathan Hutchinson, has ceased to exist.

At a meeting held October 28th, Dr. Hawthorne, Chairman of the Council, explained that it was a duty to consider the situation of the college in so far as it was affected by the war. In view of the financial position the Council were of opinion that the college should not be continued. In its early days the Polyclinic acquired a burden of debt from which it had suffered throughout its career. After a financial statement had been made by the Treasurer, Dr. Dundas Grant proposed that the college be now closed. This resolution was carried unanimously.

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### ERRATUM

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Our attention has been called to a regrettable error which occurred in our report of Dr. G. W. Ross' paper on Hemierania, on page 716 of our last number. It is stated there that 1.5 c.c. of novocaine is to be used locally for the control of the pain. This should read 1.5 c.c. of a one per cent. solution of novocaine.

### Council of the College of Physicians and Surgeons of Ontario

Elections for Council representatives of the College of Physicians and Surgeons of Ontario concluded on December 6th. Appended below are the Territorial, Homœopathic and University representatives elected:

#### TERRITORIAL REPRESENTATIVES.

|   |                |    |
|---|----------------|----|
| G. R. Cruickshank, M.D., Windsor, Ont. ....   | Division No. 1 | 1  |
| G. M. Brodie, M.D., Woodstock, Ont. ....      | "              | 2  |
| J. MacArthur, M.D., London, Ont. ....         | "              | 3  |
| A. T. Emmerson, M.D., Goderich, Ont. ....     | "              | 4  |
| J. J. Walters, M.D., Berlin, Ont. ....        | "              | 5  |
| S. McCallum, M.D., Thornbury, Ont. ....       | "              | 6  |
| H. S. Griffin, M.D., Hamilton, Ont. ....      | "              | 7  |
| E. T. Kellam, M.D., Niagara Falls ....        | "              | 8  |
| R. H. Arthurs, M.D., Sudbury ....             | "              | 9  |
| Alex. D. Stewart, M.D., Fort William, Ont. .. | "              | 10 |
| E. E. King, M.D., Toronto, Ont. ....          | "              | 11 |
| H. J. Hamilton, M.D., Toronto, Ont. ....      | "              | 12 |
| F. A. Dales, M.D., Stoungville, Ont. ....     | "              | 13 |
| T. W. H. Young, M.D., Peterborough, Ont. ...  | "              | 14 |
| T. S. Farncomb, M.D., Trenton, Ont. ....      | "              | 15 |
| W. Spankie, M.D., Wolfe Island, Ont. ....     | "              | 16 |
| W. E. Crain, M.D., Crysler, Ont. ....         | "              | 17 |
| J. F. Argue, M.D., Ottawa, Ont. ....          | "              | 18 |

#### COLLEGIATE REPRESENTATIVES.

|  |  |
|--|--|
| James M. McCallum, M.D., Toronto, Ont., University of Toronto.     |  |
| E. Ryan, M.D., Kingston, Ont., University of Queen's College.      |  |
| A. J. Johnson, M.D., Toronto, Ont., University of Trinity College. |  |
| Robert Ferguson, M.D., London, Ont., Western University, London.   |  |
| Sir James Grant, Ottawa, Ont., Ottawa University, Ottawa.          |  |
| W. L. T. Addison, M.D., Toronto, Victoria College, Toronto.        |  |

#### HOMŒOPATHIC REPRESENTATIVES.

|                               |                   |
|-------------------------------|-------------------|
| Henry Becker, M. D. ....      | Toronto, Ontario  |
| E. A. P. Hardy, M.D. ....     | Toronto, Ontario  |
| C. E. Jarvis, M.D. ....       | London, Ontario   |
| Geo. A. Routledge, M.D., .... | Lambeth, Ontario  |
| A. E. Wickens, M.D. ....      | Hamilton, Ontario |



## NEWS ITEMS

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We are told by the *London Lancet* that an intimate tie linked Lord Roberts with our profession. He was admitted an Honorary Fellow to the Royal College of Surgeons, England, January 10, 1901.

The Rockefeller Institute for Medical Research will receive \$200,000 under the will of Henry Rutherford for cancer research work.

On Wednesday, December 9th, "Tag Day" was held at Harvard University, and almost every one of the students, numbering over 4,000, was tagged. The money collected will be given to the Red Cross Society for the purpose of four motor ambulances for use in the war zones of Europe.

The British and French hospitals in Constantinople are being managed by the American Red Cross Society. This society has also accepted a formal invitation from the British Government to take over the operation of the English hospital at Smyrna, Asiatic Turkey.

A fully equipped hospital, with twenty beds for the exclusive use of Russian wounded, has been established in Petrograd by the American colony in that city.

Two hundred physicians and medical students attended the Convention of the Nu Sigma Nu Medical Fraternity held in Philadelphia, Nov. 28. The highest honor in the fraternity was awarded to Dr. J. Playfair McMurrich, Professor of Anatomy in the University of Toronto, for distinguished work in anatomical research.

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### The Ontario Medical Association

It has been decided that the meeting of the Ontario Medical Association will be held in Peterboro on May 25, 26, 27 and 28 next, and that the Provincial Health Officers Association, under the Presidency of Dr. Hall, of Chatham, will hold its meeting in Peterboro also during the same week. The joint meetings of the two associations will secure a very large attendance of the profession throughout the Province, and will probably result in single fares being obtained for the delegates.

The Committee on Papers and Business, under the direction of Drs. H. J. Hamilton, of Toronto, and G. S. Cameron, of Peterboro, has already had several meetings, and the programme is in an advanced state. It is expected that about ten papers will be read in each of the main sections, and the names of readers already secured ensure a programme of great interest.

On the evening of the first day, there will be a public welcome, given by the City of Peterboro, and a public address on some health topic will follow. The President's address will come on the evening of the second day.

Members of the associations desiring to read papers should communicate at once with Dr. Mann, of Peterboro, or Dr. Strathy, of Toronto, forwarding the titles of the papers which they desire to read. The committee has decided that no papers will be presented unless an abstract thereof be placed in the hands of the committee before the first of March.

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### **The Belgium Medical Relief Commission**

It is difficult for medical men in the United Kingdom to realise, even dimly, the dire disasters that have overtaken our *confreres* in Belgium. Imagine London a mass of ruins, its population fled, its streets in the possession of a brutal and relentless soldiery. Imagine the towns and villages of the neighbouring countries similarly desolate, with the countryside around a howling waste of burnt homesteads and harried crops. Amid such an environment the medical practitioner would find himself without home, without patients, without money and haply without food or the bare necessities of life for himself and his family. It is to be feared that the picture thus conjured up represents with tolerable accuracy the plight of the Belgian medical man who has not been lucky enough to escape to England or to some other friendly country. Some of them are at this very moment utterly destitute and dependent upon British hospitality for support. There is urgent need then of relief not only of present wants but of future needs, and it is abundantly clear that a large sum will be wanted for the purpose.—*The Medical Press and Circular*.

## Personals

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Dr. T. C. Bedell, of Merrickville has gone to the front.

Dr. Graham, of Calgary, is at present visiting Toronto.

Dr. P. E. Doolittle is Chief Commandant of the War Automobile Organization.

Dr. Britton, who lives the greater part of the time in Prince Albert, Man., is spending a part of the winter in Toronto.

Dr. S. M. Henry, of Harriston, has been appointed Medical Officer of Health in succession to the late Dr. H. R. McCullough.

Dr. Oswald Dinnick, formerly of Toronto, now of London, England, has given up an important position in a London Hospital and gone to the seat of war as First Lieutenant of the R.A.M.C.

About the middle of December it was decided to increase the staff of the Canadian nurses now in Great Britain, and it is expected that the 75 to be chosen from about 2,000 applicants will be sent in January.

By a unanimous vote Honorary Fellowship in the Academy of Medicine, Toronto, was conferred upon Dr. J. B. Leathes, who is resigning his post as Professor of Clinical Pathology in the University of Toronto.

Dr. C. J. Hastings, Medical Officer of Health, was elected First Vice-President of the American Public Health Association at the recent meeting held in Jacksonville. The association will hold its next meeting in Rochester, N.Y.

Dr. A. T. Shillington (Lt.-Col.), of Ottawa, in a letter dated Nov. 10th, said his unit reached Boulogne Nov. 8th. He has with him nine officers, 35 nursing sisters and 93 men. He was not sure whether they would remain in Boulogne or go a little further inland.

At a meeting of the Executive Committee of the Victorian Order of Nurses, held December 5th, Mr. W. J. Gage was elected Chairman of the Executive Committee in the place of the late Col. D. R. Wilkie. Among those present were Dr. Fred Grassett, Dr. Algernon Temple and Dr. Harley Smith.



The following subscriptions have been received in aid of the American Fund for Belgian physicians: Dr. H. L. Anderson, Niagara, \$2.00; Dr. W. J. Henderson, Cannington, 50 cents; Dr. Jas. S. Freeborn, Magnetawan, \$10.00; Dr. C. M. Foster, Toronto, \$5.00.

The students of the School of Pharmacy, after learning that Lt.-Col. John T. Fotheringham was likely to go to the front with the next contingent, decided to give him some token of their great appreciation of the work he has done in the school for many years. A few days before Christmas they presented him with a handsome gold watch.

The Honourable Dr. Beland, a former member of the Laurier Cabinet, was thrice wounded by shell splinters while attending the wounded at Antwerp. He exposed himself to great dangers, and went into the field at times in spite of cautions with the comment, "I am here to serve." A Belgian, in writing to Canada, spoke of him as follows: "Your brave Canadian, whose services will never be forgotten by many of our force."

Mr. T. D. M. Burnside (Thrift Burnside) died in Ashville, N.C., December 1st. He was the father of the Burnside Rugby Rules, and in his day was probably the most popular athlete in the University of Toronto. In football he played with such well known men as Jack Counsell, John Malloch, Jno. McCollum, Lockie Burwash, Jack Hobbs, Biddy Barr, Reg. Bradley, Bob Elliott and Courtney Kingstone.

## Obituary

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### ALTON H. GARRETT, M.D.

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Dr. A. H. Garratt, 53 College Street, Toronto, died at his home December 21st, aged 49. He was born in Prince Edward County, Ont., and received his medical education at Trinity Medical College, graduating from Trinity University in 1888. After graduating he practised in Queensboro, Hastings County, for about a year. In 1889 he commenced to practise in Toronto, and was actively engaged in professional work up to about a month before his death. During his year in Queensboro he had attacks of rheumatism, which ended in very serious disease of the heart. Although seriously crippled from this disease, he engaged in active practice and to some extent in sports. He was especially known in yachting circles, where he was respected as an expert yachtsman. Also as a practitioner he was successful and popular, his patients being very fond of him. His warm friends included all members of the medical profession who knew him intimately. We offer our heartfelt sympathy to Mrs. Garratt (Miss Mina Fletcher) and his only son, Philip Clarke Garratt.

A short service was held at his home Wednesday morning, December 22nd, after which the remains were taken to Wellington, Prince Edward County, for interment.

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### ABNER MUNHOLLAND ROSEBRUGH, M.D.

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Dr. A. M. Rosebrugh, who was correctly described in one of our Toronto papers as the well known physician, social reformer and inventor, for nearly 60 years a resident of Toronto, died December 1st, aged 79. He graduated, M.D. from Victoria University in 1859, and after doing post-graduate work in New York and London, England, he commenced practice as an eye and ear specialist.

At the regular meeting of the Toronto Academy of Medicine held December 2nd, a resolution of sympathy to Mrs. Rosebrugh was passed in the following terms: "In view of the eminent position in the profession occupied by Dr. A. M. Rosebrugh, and of his splendid work both in ophthalmic surgery and in the scientific study of inebriety, it was the intention of certain members of the Council of the Academy of Medicine, Toronto, to propose the name of Dr. Rosebrugh for Honorary Fellowship. Owing to

his recent death that intention cannot now be carried out, but as a representative body in this city we wish to place on record our sense of the great loss to the community in the death of Dr. Rosebrugh."

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**ROBERT J. LOCKHART, M.D.**

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Dr. R. J. Lockhart, of Vancouver, B.C., died October 20th, aged 58. The remains were brought back to his old home in Hespeler, Ontario, and buried October 27th.

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**HENRY REED McCULLOUGH, M.D.**

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Dr. H. R. McCullough, of Harriston, died at his residence, October 21st, after a short illness, aged 51. He was a son of the late Robert McCullough, of Georgetown, and graduated, M.D. from Trinity University in 1887. After taking post-graduate courses in London and Edinburgh he settled in Harriston in 1888, and continued in active practice until two weeks before his death.

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**FREDERICK FRANK, M.D.**

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Dr. Frank, one of the pioneer residents of Orangeville, died in that town November 23rd of apoplexy, aged 74.

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**ISAAC BURNEY YEO, M.D., F.R.C.P.**

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Dr. Burney Yeo, the well-known Emeritus Professor of Medicine, King's College, London, the author of "Medical Treatment," which attained a circulation of over 30,000 copies; "Food in Health and Disease," and "The Therapeutics of Mineral Springs and Climates," etc., died in London, England, November 20th, aged 79.

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**LLEWELLYN BROCK, M.D.**

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We have to record with deep regret the death of Dr. L. Brock, which occurred December 9th. Dr. Brock had reached the ripe old age of 76, and was engaged in active practice for over fifty years. He was one of the best known and most highly respected physicians in Ontario, and was a member of the Ontario Medical Council from 1894 to 1906, being President of that body in 1901.



## Selections

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### Another Word as to the Treatment of Syphilis

Probably because physicians are continually called upon to treat disease which threatens life they are, like the laity, inclined to grasp with avidity any new remedy which holds promise of better things in therapeutics. Their very anxiety to produce a cure and to relieve physical and mental suffering causes them to be optimistic, and only when they have been grievously and repeatedly disappointed, and sometimes not even then, are they prone to lose this optimism.

One of the reasons for loss of optimism concerning the value of any given remedy is not so much a fault in the remedy as in the failure of the physician to recognize that after disease has been in existence a considerable period of time, such changes have taken place, both functional and organic, that the remedy has at least three duties to perform: first, to remove the actual cause of the disease; second, to heal damaged tissues; and thirdly, to re-establish functional activity in such a way that the action of a given organ or organs becomes entirely normal. Manifestly, such expectations on the part of physician and patient and such actions on the part of a drug can only occasionally be met, but if the physician continues to keep abreast of the advances made in physiology, pathology, and bacteriology, he will often recognize that a cure in every sense of the word is impossible, and instead of becoming pessimistic, when his remedies fail, will really be optimistic or grateful that he has in hand remedies which are of any value at all, and which, hand in hand with Nature's reparative processes, may at least better the patient.

We have emphasized these points on previous occasions, and our attention is called to them once more by a consideration of our present knowledge concerning the drugs which are used in the treatment of that well-nigh universal disease—syphilis. As we have pointed out on a previous occasion, it apparently has become a well-established fact that neither salvarsan nor neosalvarsan has substituted itself for the older mercurial preparations which have been known for generations to be effective. Indeed, it may be said that at most the newer arsenical compounds only do half the work, and in some cases not that—the other half, of necessity, being carried out by mercury in some form. So, too, we have pointed out, as have many others, that many years must pass before a correct estimation of the curative effects of salvar-

san can be attained. It is probable that time will show that the doses used must vary very largely with the condition of the infection, and while it may be considered at this time that salvarsan certainly destroys the spirochæta, we do not know that it destroys it quickly enough to prevent all damage to nervous or other tissues.

A consideration of the literature of this subject shows very clearly that neither of these new compounds of arsenic is capable of doing all that we desire, and some clinicians have been so disappointed in the results that they have obtained that they seem to be almost inclined to regard them as remedies worthy of little confidence. Thus, Klotz goes so far as to oppose the use of these substances, asserting that mercury and the iodides, if employed with proper judgment and continued for a sufficient length of time, will do more than salvarsan after the initial stage of the disease has passed by, and in hereditary syphilis Levy-Bing and Durœux state that they do not think that salvarsan or neosalvarsan is the best remedy. Other clinicians seem to agree with this view, asserting that if we wish to protect children of syphilitic parents, it is essential that the mother should receive mercury and that salvarsan shall not be the sole remedy. A very large number of those who have had large experience in the treatment of syphilitic parents and children seem to agree with this view. Thus, Shields has been so unfortunate in his use of salvarsan as to believe that it is not to be relied upon to abort or cure the malady, and others consider it only a useful aid to mercury. Wilson thinks that the present use of salvarsan is a form of therapeutic hysteria, and states that its common use is an "over-riding of science by commercialism," and expresses the startling view that if more judgment is not used in relying upon salvarsan, we will find, to our cost, that there is a great increase in the number of children who are born syphilitic. Others, taken aback by the occurrence of fatalities after salvarsan has been used, are afraid of it, seemingly overlooking the fact that the percentage of fatalities recorded up to date is so small as to be almost negligible in one sense.

That late syphilis of the nervous system is only partly prevented by the use of salvarsan would seem to be a fairly-well determined fact, and that salvarsan given intravenously is of very little value when the nervous system has suffered from syphilis over a considerable period of time has certainly been settled. This is not because the salvarsan is, in itself, incapable of acting upon the infecting parasite, but because the parasite is hidden in tissues to which the salvarsan cannot gain access, and if per-

chance it does gain access, it, directly or indirectly, acts upon the nervous system.

It may be fairly stated, therefore, that while salvarsan is our best remedy in combating primary syphilis, just as water is our best remedy in combating fire, it has no power to remove the results of infection; whereas mercury seems to possess this power to a considerable degree. This also holds true in regard to visceral changes in other parts of the body than the central nervous system, gummatous growths being influenced more favourably by mercury, when properly administered, than by salvarsan.

While, however, there are many who have been disappointed in the action of the newer arsenical compounds in the treatment of syphilis for reasons which are obvious, there are, nevertheless, others who still maintain their confidence and strongly advocate their value. Some of these, as for example de Aja, assert that those who have failed to get good results have failed because they have been afraid to administer adequate doses, and a number of other authors indorse this view, pointing out that no drug, if given in insufficient quantity, can be expected to accomplish the results desired. So strongly do some clinicians advocate this view that Whitehouse and Parke assert that when the disease does not yield to salvarsan, the disease is not syphilis.

This brings us to the question of dosage. It would seem evident that all of the drugs should be given that the patient can stand, using large doses occasionally rather than small doses very frequently, thereby getting a maximum effect at each dose and allowing time for the body to eliminate the dose and deal with the toxins which are set free by the destructive action of the salvarsan upon the spirochaetae.

That salvarsan is very much more efficient than neosalvarsan, even when the dose given of the latter drug is considerably larger, also seems to be proved. Nevertheless, its greater safety cannot be denied, and in cases which are not urgent it is perhaps the remedy of choice, at least until it can be determined that the patient withstands the treatment satisfactorily or that the neosalvarsan is not sufficiently powerful for the task set before it.

To express what we have said in a concrete form, it may be stated that salvarsan has its greatest field in arresting the infection in its early stages, and that mercury still holds the fort in the later stages and probably in the early stages as well. Or, again, to express it differently, syphilitic patients should receive both remedies, not simultaneously but in sequence.—*The Therapeutic Gazette*.



**German "Culture" and Science**

Frederick the Great said: "When I want a thing I take it, and find hosts of pedants to justify my action." Carlyle's questionable "hero" evidently knew the value of German culture. Bismarck, too, lost no opportunity of expressing his contempt for "professors." Of Treitschke, the preacher of the gospel of hatred for England, we are told by Norman Hapgood in *Harper's Weekly*, that "He had a natural tendency toward learning, but a natural tendency also toward using his facts to prove what he liked to believe." This characteristic is strikingly illustrated in the manifesto on the war which has been issued by ninety-three of the leading "intellectuals" in Germany. Among the names appended to this document are those of Professors von Behring, Czerny, August Bier, Haeckel, Ehrlich, Weismann, W. Wundt, and others who have been looked upon as leaders in medical science. If this kind of effusion is the product of "culture," it seems to us to be an exhibition of the German spirit even more deplorable than the burning of Louvain or the shelling of Rheims. These crimes of savagery may be partly explained as the acts of a brutalized soldiery. But that German learning in its highest development should lead men to ignore and misrepresent plain facts and insult the intelligence of the world by asking it to believe statements which can only be described as, like Falstaff's lies, "gross as a mountain, open, palpable," throws a fierce light on the mentality of the nation of which they are the intellectual leaders.

As the documents are of a political character, we do not propose to discuss their text. It is of importance, however, to point out that the authors do not seem to have taken the slightest trouble to make themselves acquainted with the facts as to the origin of the war; indeed, some of their statements are in direct conflict with the German case as presented in the official White Book. This being their method of controversy, it is natural that they should simply ignore the German Chancellor's confession of wrongdoing and his illuminating reference to a solemn treaty as a "scrap of paper." What interests us is the revelation afforded by the manifesto of the value of "culture." Either the professors know that they are putting forward untruths or they do not. If they do know this, how can we trust any other statements they may make? If they do not know it, then German "culture" as an instrument for the discovery of truth is utterly worthless—or worse, for it is a machine for the production of falsehood. We are more dis-

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posed, however, to believe that the German "intellectuals," like their master, Treitschke, have a natural tendency to use their facts to prove what they like to believe. Whether they are in good faith or not, the result of their amazing deliverance must be to discredit German science.

Dr. Victor C. Vaughan, President of the American Medical Association and Dean of the Department of Medicine and Surgery of The University of Michigan, has recently deplored in the *New York World* the loss to the world since German laboratories were exchanged for battlefields whence few will return. "The greatest scientific discoveries of the world," he says, "have been made in German laboratories." We venture to think that Dr. Vaughan exaggerates. It was not in German laboratories that vaccination, anaesthesia, or antiseptics were discovered. Bacteriology we owe to Pasteur, radium to Madame Curie. The list might be indefinitely extended. The German talent lies largely in applying discoveries made in other countries.

A reply to the German manifesto, at once dignified in the restraint of its tone and crushing in its plain recital of facts, has been made by a number of scholars and men of science representing different sides of British learning. It was drawn up by Professor Gilbert Murray, of Oxford, and among the signatories are Sir Clifford Allbutt, Sir Charles B. Ball, Sir Thomas Barlow, Sir William Watson Cheyne, Sir James Crichton-Browne, Sir Rickman Godlee, Dr. J. S. Haldane, Sir Wilmot Herringham, Professor J. N. Langley, Sir Donald MacAlister, Sir William Macewan, Sir Patrick Manson, Professor F. W. Mott, Sir William Osler, Sir Isambard Owen, Sir William Ramsay, Sir Ronald Ross, Professor C. S. Sherrington, Sir William Turner, and Sir Almroth Wright. It may be interesting to add M. Anatole France's opinion of the German professors' protest. "This manifesto," says the leading writer of France, "is a monstrous crevasse between Germany and the whole civilized Europe, an unbridgeable abyss. The only reply to make is to fire on the mass without scruple. These 'intellectuals,' glorifying and exulting Prussian militarism, show themselves to be more odious than the brutes whom they defend. The apologists for a crime are more culpable than the criminals. We must now make a new Europe, a harmonious Europe. It will be necessary to destroy the last army, the last fortress of the Hohenzollerns. After the defeat of the Germans we shall see, but for the moment our business is to conquer.—*British Medical Journal*.



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**Mental Stress Associated with Shock**

The surgical lessons of the war are naturally attracting the attention of the medical profession, and the experiences recorded by various authorities in our societies and journals are full of interest and value. At first sight one would have concluded that among the certainties of surgery was the principle on which wounds ought to be healed, yet, to judge from a recent controversy, there are now acute differences of opinion on the point. These differences seem to be multiplied when details have to be considered, and the merits of carbolic acid and iodine and petrol, not to mention other agents, have excited quite a storm of contradiction. For the present we leave these discussions on one side, having the fairly secure conviction that in an individual case most surgeons would descend from doctrinal disputes, and would be in substantial agreement on the practical measures to be adopted. There are, however, gradually accumulating experiences of the results of violence apart from wounding and other mechanical injury, and though the time has not yet come for subjecting these to an exhaustive analysis it is well that from the outset attention should be directed to them. They touch closely some difficult points of nervous and mental pathology, and are not without significance in relation to the effects of violence as these are at times canvassed by medical witnesses in courts of law.

**BATTLE SHOCK AND MENTAL BREAKDOWN.**

One of the groups of cases resulting from the shock of battle and yet unaccompanied by evidences of gross organic damage is marked by mental disturbances of a very serious and anxious order. So frequent, at least relatively, have these been, that, as is well known, a proposal has been made to organise a special hospital for their treatment. With the individual merits of this proposal we are not here concerned. It is sufficient for our present purpose that it has been made and supported by authorities of no inconsiderable weight, and that everyone who has considered the situation agrees in the necessity of some organized scheme of treatment for the cases here in question. The meaning of this position obviously is that violence, and the mental stress associated with violence, are capable of producing in some fashion or other severe and obstinate pathological disturbances in the nervous system, while leaving the integrity of the nervous apparatus unimpaired, at least so far as the ordinary methods of clinical examination are concerned. The cases are not cases of organic nervous disease in the usual acceptation of this term. Apart from the mental state there is nothing to criticise or to condemn. None the less there must be some serious alteration in the functional values of the

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organic machinery, and this alteration is the result of violence plus the mental influences which accompany violence. The change is there; it is produced in the manner above described, and it is not associated with such organic alterations as display themselves to clinical analysis. All this, it may be remarked, is no new experience. True, but it is a large and impressive display of certain possibilities which may result from violence, and the occurrence of which suggests some measure of caution when the full extent of the consequences of the application of violence to a given individual have to be estimated.

#### BLINDNESS FROM SHOCK.

Another series of cases gathered from recent war experience, and having a high degree of interest, consists of men who are found to be blind, though the most exact and skilful examination fails to detect any sign of organic injury, and in time, and under the influence of rest, the patients recover their sight. Here again the strain and shock of battle must have impaired, and impaired seriously, the functional nerve values of some portion of the visual apparatus, though all organic and objective evidence of such impairment escapes entirely the skill of the physician. Mischief has been done, but it is mischief which clinical tests can neither recognize nor identify. The suggestion is obvious that these tests, valuable as everyone knows them to be, are not final and exhaustive, at least in their negative announcements. Hence the conclusion has to be repeated that it is neither safe nor scientific to affirm that the effects of violence are non-existent because no objective evidences of such effects can be found.

#### VIOLENCE IN CIVIL PRACTICE.

The truths thus made evident on a large scale in war have, we suggest, some field of application in civil practice. As a result of recent legislative developments the medical practitioner is called upon with increasing frequency to estimate and appraise the pathological consequences of violence. In cases where there is organic evidence of pathological change the position is a comparatively simple one. But where there is no such evidence, while the patient at the same time affirms some functional disability, judgment is often most difficult, and we venture to think, that a conclusion adverse to the patient is sometimes too readily presented. That there are fraudulent persons and malingerers no one denies.

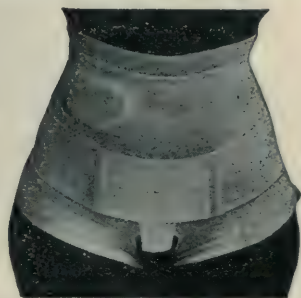
But, we now recall, all persons who profess symptoms of disease unaccompanied by clinical signs of organic change are not of this order, and if anyone questions such a proposition there exist to

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contradict him such war experiences as we have already quoted. Fortunately, the malingerer, for the most part, spoils what might be a good case by exaggeration, and there are instances in which a medical practitioner may speak with the greatest confidence in opposition to professions based on alleged injury.

#### MALINGERERS AND MEDICAL "DETECTIVES."

There are others in which no medical certainty is possible, and yet it is not altogether uncommon in such cases to hear expert witnesses, both on one side and the other, expressing themselves in terms of the most absolute and unqualified confidence. The position in practice is, we admit, full of difficulties, but two suggestions may be made. The first is that mere absence of organic signs is not a convincing proof of the absence of real suffering and functional disability, as the medical records of the present war make abundantly evident. A second suggestion, advanced with some diffidence, is that the distinction of the malingerer from the genuine complainer cannot be based entirely on a negative clinical examination; something in addition, and more or less of the nature of detective work, is needed, and it is a matter for wonder that in such cases evidence of this order is not more frequently obtained. The duty of the medical practitioner may sometimes include some such scrutiny, but, failing this, let him remember such records as are now coming to us on a comparatively large scale from the seat of war, and not be too ready to announce that all is well merely because the physical results of his clinical examination show no appreciable departure from what is recognised as the normal standard.—*The Hospital*.

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#### The Leukemias Under Benzol

Sappington and Pearson, in the *Journal of the American Medical Association* of July 11, 1914, report their experience with this line of treatment.

In a case of chronic myeloid leukemia under benzol, treated previously and concurrently with Roentgen rays, the leucocyte count remains relatively low though the formula is changed in favor of large mononuclears. The spleen remains the same size, but the patient generally is improved. This patient was under observation two years.

In a case of chronic lymphatic leukemia, benzol, without Roentgen assistance, restored the white count to normal. Later, Roentgen rays were used for a short period. The patient has now been without benzol or Roentgen ray for six months, yet the



leucocyte count remains low and almost within normal limits. The formula, however, has returned to a high percentage of lymphocytes. The spleen did not diminish in size and is now further enlarged. The patient was under observation one year.

In a case of acute leukemia, benzol seemed to have had no effect one way or the other on the blood or the size of the spleen. The necropsy findings were typical of acute leukemia; there were no liver neuroses or damaging effects of benzol apparent. Metabolism studies did not reveal any marked losses.—*Therapeutic Gazette*.

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### Intramuscular Injections of Antitoxin in the Treatment of Diphtheria

Rolleston and Macleod, in the *British Journal of Children's Diseases* for July, 1914, reach these conclusions:

Intramuscular injection, preferably in the vastus externus, deserves to supersede all other methods of administration of antitoxin in the treatment of diphtheria for the following reasons:

1. It is quite as simple as the subcutaneous method, insures much more rapid absorption, is less painful, and less liable to give rise to abscesses at the injection site.

2. It is superior to the intravenous method, not only in the great simplicity of its technique, but also in the less rapid excretion of antitoxin after injection.

3. The more rapid absorption of antitoxin by the intramuscular route is shown, not by the effect on the faucial or laryngeal process, but by the lesser incidence of paralysis, especially of a severe kind.—*Therapeutic Gazette*.

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### The Significance of the Argyll-Robertson Pupil

Solomon (*Chicago Medical Recorder*), notes that of the various disturbances of the pupillary reflexes—such as irregularity in the size of the pupils, irregularity in the outline or margin of the pupils, disturbance of the cervical sympathetic eye-reflex and the consensual light reflex, etc.—one of the most significant and diagnostic findings is the Argyll-Robertson pupil. This sign consists of the loss of the direct pupillary light reflex, with unimpaired response to the accommodation reflex, on one or both sides.

The Argyll-Robertson pupil has been observed in a number of different conditions. For example, it has been observed following direct injury (pistol shot) of the structures of the mid-brain: in

cases of chronic alcoholism, especially Korsakow's psychosis with its accompanying polyneuritis. It has also been found as a result of pressures, from poliomyelitis, trypanosomiasis, tumors of the third ventricle, and pineal gland lesions. In all these conditions, however, the Argyll-Robertson pupil is found only very rarely. Practically, however, the Argyll-Robertson pupil—it may be said quite positively when bilateral and permanent—is an indicator of the presence of syphilis. We may say that when a fully developed Argyll-Robertson pupil is present, we have a case of syphilis of the central nervous system, involving most probably the cerebrum or mid-brain. Absence of this significant syndrome does not, by any manner of means, negative the presence of nervous lues, since, as is well known to all specialists in this field, paresis, tabes and other syphilitic affections of the central nervous system may be present without any pupillary changes taking place, at least for some time, and even throughout their course. The examination of the cerebrospinal fluid for the Wassermann reaction, Lange's "goldsol" test, increased globulin content, and quantitative and qualitative cell count is, of course, of the utmost importance for diagnostic, prognostic, and therapeutic purposes.—*Therapeutic Gazette*.

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## Original Communications

### THE DIAGNOSIS OF SUBTENTORIAL TUMORS

By G. W. HOWLAND, M.B., M.R.C.P.,

In charge of the Out-patient Department for Neurology, Toronto General Hospital.

The study of the diagnosis of subtentorial growths resolves itself into three distinct divisions, namely, in the first place, the determination of the anatomical site of the subtentorial lesion; and I refer here to the three positions, namely, cerebellar, extra-cerebellar (between the cerebellum and occipital bone), and lastly the pontine; while it is necessary also to definitely separate such lesions from those due to disease above the tentorium.

In the second place one must differentiate the various morbid conditions which occur in these regions, namely, tumors, abscesses, vascular thrombosis and hæmorrhage, labyrinthine disease, meningitis, sclerosis and atrophy, and finally uræmic manifestations.

Thirdly, the nature of the new growth. Is it syphilitic, tubercular, hydatid, or one of the manifold types of neoplasm?

The disturbances of function which are characteristic of subtentorial growths may be divided, in order that we may come to a decision as to the anatomical site, into eight divisions, namely:—

- (1) General signs of increased intracranial pressure.
- (2) Cerebellar and cerebellar tract signs.
- (3) Brain stem, nuclei and nerve signs.
- (4) Motor and
- (5) Sensory tract signs.



- (6) Bladder and rectal symptoms.
- (7) Signs of increased ventricular pressure.
- (8) Reflexes.

#### I. GENERAL SIGNS.

The first cardinal sign is headache.

This is usually an early sign in cerebellar and extra-cerebellar tumors, but usually late in pontine and medullary growths. It is most characteristic if it is felt at the back of the head, but is very frequently complained of in the frontal region, and while it may occur in both, yet its maximum may be frontal rather than occipital.

Again, one may mistake neuralgia over the fifth nerve for a true headache. In supertentorial growths, occipital headache is not the rule, but may occur, while we must note with the greatest care that if the basal tumor causes pressure on the fourth ventricle, it may lead to great dilatation of the lateral ventricles, which may cause a complaint of great internal pressure and occasionally sensation burning in character.

The second cardinal sign is optic neuritis.

Now, in cerebellar this is frequently early and intense, and the same statement applies to extra-cerebellar growths, while in pontine it is frequently late in appearance. But it may be absent; in fact, in Paton's series it was not seen in 26 per cent. of extra-cerebellar growths, nor in 48 per cent. of pontine, and yet, strange to say, the actual degree of swelling of the disc was greater in pontine than in the other two. In supertentorial growths all degrees of optic neuritis occur.

Three. *Vomiting* is usually present in cerebellar and extra-cerebellar growths, and yet it may be absent for months at a time and then recur. In pontine it is usually less severe, while in supertentorial growths it is like the other general signs, variable.

*As to giddiness and dizziness.* Leaving aside that form of true vertigo in which objects appear to move from side to side, or in which the patient feels that he is moving from one to the other side,—a symptom which is probably due to interference with the semi-circular canals or their nerve connection via the pons to the mid brain—and considering only the sensation of general giddiness due to increased intra-cranial pressure, one may simply state it is frequent in all subtentorial conditions.

## II. SIGNS DUE TO THE CEREBELLUM AND ITS TRACTS.

In examining the signs due to cerebellum involvement, it is necessary to note that the cerebellum is connected by its peduncles with the spinal cord and with the pons, both of which are afferent and efferent to the cerebellum, while by its superior peduncle it is mainly efferent to the nucleus centres of the mid-brain to the red nucleus, optic thalamus and cortex. But physiologically it is in all probability the great centre for tone, and it apparently acts in three distinct ways, namely:

(1) It receives as a sensory centre the sensation of tone from all parts of the motor mechanism.

(2) It supplies a constant amount of tone to the motor mechanism at rest.

(3) In correlation with cerebral and cortical action it supplies the necessary tone for prolonging contraction when an action is performed.

Naturally three classes of symptoms may arise in cerebellar disease.

(1) Due to loss of tonic afferent stimuli, and in this case the cerebral action may be excessive, since no knowledge of the necessary amount of tone to be exercised is obtainable.

(2) Due to loss of tonic and of efferent stimuli at rest, resulting in a general atonia and asthenia of motor structures.

(3) Due to loss of tonic efferent stimuli when cortical motor action is performed, leading to tremulous movement dependent on the absence of constant tonic stimulation which should be supplied by the cerebellum.

Considering, therefore, the disturbances due to interference with the cerebellum by tumors, one may outline them under the aforementioned headings.

(A) Due to excessive cerebral action owing to absence of cerebellar afferent stimuli.

(a) *Asynergy*. This sign is not often present, but is characterized by the difficulty in performing movements of groups of muscles usually associated together. The cortical cells find it impossible to associate a proper degree of tone for each group of muscles, and therefore simple movements which should be combined together are each performed separately.

(b) *Adiadocinesia*. This is usually tested by rapid pronation and supination of the forearms, and when there is cerebellar defect one expects to find a diminution in the ability with which it is performed on one or both sides; it is valuable

if one-sided cerebellar is present. It depends on the fact that the cortex is unable to rapidly change from one simple movement to another, due perhaps to a difficulty resulting from a lack of knowledge of the proper tone to be supplied for the action.

(c) *Cerebellar Catalepsy.* Tested by the patient lying on the back and elevating legs flexed at the knees. In this case, while tremor may occur before they reach this position, when once they are held there in cerebellar disease there is more than usual ability to keep them firmly in such position.

(d) *Loss of power of measured movements.* The patient in writing or in pointing out an object advances either the pen or the finger to a degree beyond that required. Again probably due to uncontrolled action of cortical centre.

(B) The next signs are cerebellar asthenia and hypotonia, and these are of great value if one side is only or principally affected; although the muscular power is strong and equal on both sides one recognizes marked hypotonia or definite asthenia in the arm and leg of the side in which the cerebellar lesion is situated.

(C) The third group of signs are apparently dependent on the fact that a normal action of the cerebral motor cells and a continuous tonic supply from the cerebellum is necessary in order that the movement may be continuous and not intermittent.

These cardinal signs occur not only in cerebellar disease, but in disease of the tracts from the cerebellum to the nuclei in the mid-brain, to the red nucleus and probably the thalamus.

1. *Tremor.* In these cases a true intention tremor may occur, and if one-sided will be on the side of the tumor.

2. *Nystagmus.* Probably due to the same cause and characteristically shown by being rapid on the side opposite to the tumor, and slow and jerky on the side of the tumor.

(D) There are certain signs due to the cerebellum being affected in which probably not only the afferent but also the efferent defects bear definite influence.

(a) The gait in cerebellar disease is frequently highly characteristic and yet varies in many different cases. On the one hand there may be a marked synergic gait in which the patient is unable to walk from the fact that he cannot perform the separate movements necessary in this action at the same time. On the other hand there may be marked titubation; the patient staggering from side to side with a tendency to fall, in some



cases to the side of the tumor—probably due to a measure of atonia on that side.

(b) Again, in standing the patient may fall to one side from static ataxia.

(c) The head may show marked trembling and may be held over to one side, usually but not always having the occiput on the same side depressed towards the side of the tumor.

Now, while these are typical signs of a diseased cerebellum, yet they may occur in extra-cerebellar tumors from the growth pressing into the lobe, and also in the same manner cerebellar signs may occasionally occur in pontine tumors. In the latter case the gait is more likely to be spastic, and yet in some cerebellar cases the gait may be slow and uncertain rather than asynergic or titubate.

### III. SIGNS DUE TO INTERFERENCE WITH THE CRANIAL NERVE NUCLEI.

As a general rule it may be laid down that complete paralysis of cranial nerves issuing from the subtentorial region is diagnostic of extra-cerebellar or pontine lesions, and that partial paralysis, while due to pressure from any of the three causes, extra-cerebellar or pontine may yet be due to cross pressure from the opposite side or to displacement of the cerebellum itself.

(a) The 3rd and 4th nerves arise above the tentorium, and yet, particularly with a displaced cerebellum, may be severely affected. It may be affected on both sides or on one, and may show loss of power of movement of the eyes and ptosis. Such is an extreme case; for instance, that quoted by Spiller, where, with a big extra-cerebellar tumor dislocating the cerebellum forwards, there was on the left side ptosis and only movement of the eye downwards, and on the right side internal rectus weakness. In this case, despite the left cerebellar growth, nearly all the signs were right cerebellar, namely, weakness of the right face and masseter muscle, while signs of pontine involvement showed in the affection of both lower limbs with extensor responses.

(b) The 4th nerve may be affected by a tumor growing forwards through the tentorium and cause difficulty looking downwards.

(c) The 6th nerve supplying the external rectus muscle.

Paresis or paralysis of the external rectus must be carefully distinguished from slow nystagmus. It is a one-sided

condition, as the internal rectus of the other side will not usually be affected. Diaplegia will be complained of on the affected side. In extra-cerebellar this is diagnostic and valuable; in pontine it also occurs; in intra-cerebellar rarely, and then due to pressure. In supra-tentorial tumors it may occur late from general pressure or from growth interrupting the nerve in its course to the muscle it supplies.

(d) The 5th nerve may be affected in either its sensory or motor course. In extra-cerebellar tumors there may be disturbance or injury of either or both divisions, with numbness over the face, or pain, and with weakness of the temporal masseter and pterygoid muscles, so that opening the jaw it drops to the healthy side. In pontine lesions the same condition occurs, while a double 5th may occur, or a 5th with crossed paralysis: that is, with lesion of either nerves or motor sensory tracts on the other side of the body. In supra-tentorial growths, apart from general pressure, a 5th may be implicated, especially in its sensory branches, in its course from the Gasserian ganglion to the nerve exits from the skull.

(e) The 7th is usually affected in all forms of tumor; to some degree total facial paralysis occurs, most usually in pontine and extra-cerebellar growths; it may occur on both sides in pontine and vermiform process tumors. Cerebellar tumors usually cause the upper neurone type of weakness, in which the lower part of the face is mainly or only affected. And yet one must note here that the pressure may be actually greater on the side opposite to the growth, with weakness to the face on that side. Supra-tentorial growths, if situated near the motor areas or the motor paths leading from them, produce the upper neurone type of facial paralysis. General intraventricular pressure leads frequently to weakness in the facial muscles on one or both sides, having no relation to the tumors itself.

(f) The 8th nerve is frequently affected in extra-cerebellar growths and pontine growths. You may look for early signs of both affection of hearing and of the equilibrium. Giddiness, due to affection of the nerve leading from the semi-circular canals to these nuclei in the pontine angle below the cerebellum, may occur. Noises in the ear also, such as the sound of escaping air; but deafness is a cardinal sign of pontine or extra-cerebellar tumor. In cerebellar lesions there may be disturbances of hearing, usually partial and due to pressure; while in supra-tentorial lesions deafness may also occur, but in this case

more usually due to counter pressure or to auditory neuritis, or to word deafness.

(g) The 9th nerve is rarely affected in any but pontine tumors. However, cases are reported of extra-cerebellar tumors growing on the 9th, in which taste on half the tongue was lost, and this was the first sign of the growth. It is interesting to note in one case smell was lost also on the same side. In cerebellar tumors there is rarely affection of any of the nerves below the 8th, but yet pressure on this may occur, and the order of their frequency is 9th, 10th, 11th, 12th.

(h) The vagus is principally of diagnostic value in its affection in connection with pontine growths. Truly in extra-cerebellar there may be a weakness of the palate on the same side; in cerebellar still more rarely; in pontine this is much more characteristic. So with the vocal cords; their affection is practically diagnostic of the pontine lesion. General pressure, however, in all conditions—cerebellar, extra-cerebellar, and pontine—leads to vagus trouble, with difficulty in swallowing, and in some cases death may occur from affection of the respiratory centre.

(i) The 11th nerve. The spinal accessory may be affected in pontine growths, wasting of the muscle on the diseased side, while the usual position of the head in cerebellar tumors may be regarded in some cases as due to irritation of this nerve, or more frequently as a sign of true cerebellar nature.

(j) The 12th nerve is frequently affected in pontine tumors, while in extra-cerebellar tumors, it is most usually affected through direct pressure on the pyramidal tracts above the crossing; wasting of the tongue is strongly diagnostic of pontine growth. As to the affections of speech, one can realize that this function may be altered through several different conditions; for instance, through cerebellar ataxia, or through affection of the 7th, 10th, or 12th nerves. A truly ataxic speech is most characteristic of intra-cerebellar disease, and is seen most commonly, perhaps, in cerebellar sclerosis, while defects due to interference with the nerves is more common in pontine disease.

#### IV. AFFECTION OF THE MOTOR POWER OF THE LIMBS.

The condition of the motor power of the body, apart from that due to cerebellar disturbances in function, does not show any change in a pure cerebellar case. In extra-cerebellar tumors there may be definite weakness of the opposite side,



while in pontine lesions there may be definite bilateral or unilateral weakness, which frequently is of a definite spastic type.

#### V. AFFECTION OF BODILY SENSATION.

Changes in sensation of touch, pain, and temperature on the side opposite to a tumor when it is present, is very strongly diagnostic of a lesion in the pons, especially if it is disassociated. If it should occur in extra-cerebellar tumors its presence must point to extensions of the growth into the pons.

#### VI. AFFECTION OF THE BLADDER AND RECTUM.

Bladder and rectum disturbances are characteristic of pontine disease, or to high intra-ventricular pressure with dilatation of the ventricles.

#### VII.

A further group of symptoms are those due to increased intra-ventricular pressure, and these are of two types: firstly, local where the increased pressure in the lateral ventricles gives rise to local signs, such as upper neuron hemiplegia, hemianopia, and so on. Under general signs I include the various forms of convulsion. Firstly, attacks characterized by a sensation of marked weakness described by the patients as a sensation of "giving way." Secondly, the cerebellar fits described by Hughlings Jackson, characterized by extension of the legs and the crossed arm type so well figured by him.

#### VIII.

The value of the reflexes in the diagnosis of these three lesions is not great. In cerebellar tumors the reflexes are frequently diminished; they may, however, be increased, particularly if the pressure exhibited by the tumor is becoming great. In extra-cerebellar tumors a characteristic symptom would be increase of the reflexes on the side opposite to the tumor from pressure, with an extension response on that side. In pontine tumors the presence of double extension responses, with markedly increased reflexes and ankle clonus, is in favor of such a lesion.

#### DIAGNOSIS.

(1) The diagnosis of abscess from growth consists in the history of local septic processes, of more rapid onset, of temperature variations, with perhaps high white cell count.

(2) From local thrombosis and hæmorrhage, the diagnosis must rest on the onset and on associated vascular conditions, while the localized signs will be similar to those of tumor, yet the general signs of tumor will be absent.

(3) For meningitis we have the onset, rapid course, more marked basal irritation, spinal puncture and blood count.

(4) From uræmia, by the renal condition, the examination of the optic discs, signs of basal irritation without local paralysis, absence of cerebellar signs, and relief by lumbar puncture.

From labyrinthine disease, by the aural examination, absence of optic neuritis, characteristic nystagmus, and so on.

The following four cases of subtentorial tumor have come under my care in the last three months, and, strange to say, have followed one another consecutively.

CASE 1.—Tumor of the pons. F. B. Age 32. Four months before complained of double vision, followed by paralysis of the right side of the face, and two months ago of weakness of the right arm. In considering his general symptoms it is interesting to note that even at this late stage he complains of no headache, but at one time suffered from giddiness, which entirely left him when vomiting started; this latter symptom is now of less note. Examination of discs showed marked optic neuritis. In regard to his cerebellar symptoms there is neither asynergia, asthenia nor tremor made out. Examination in the third place of the cranial nerve signs shows paralysis of the motor 5th on the right side, and complete paralysis of the whole of the facial movements on the right side, due to affection of the 7th. No deafness is present, but there is weakness of the right palate. On examination of the motor power of the body, there is spasticity and weakness of the left arm and leg, and also of the left sterno-mastoid muscle. The characteristic signs of pontine disease are added to by the fact that there is a feeling of numbness in the left side of the body, heat sensation felt as painful, while cold sensation is normally interpreted. There is no disturbance of the bladder. The reflexes on the right are normal, and the left are increased with left ankle clonus and plantar extensor.

CASE 2.—F. T. Age 14. Complains of headache for the last three years, but severe for the last three months. Vomiting, staggering gait, discharge in the left ear. Three years ago, following scarlet fever, this boy developed ear discharge, but it stopped three months ago, when his headache became severe. As to the general symptoms, the headache is felt in

the frontal and occipital regions, vomiting is still present, at other times retching is more marked; optic neuritis is present in both eyes, the left greater than the right. The cerebellar signs are characteristic; there is hypotonus on the left side, but adiadocinesia is most marked on the right side, and on walking he falls to the right. There is no nystagmus and no tremor. The cranial nerve signs are absent. There is neither paralysis nor paresis of any of the cranial nerves. The reflexes of the knee are depressed, the planta is extensor on the right. Lumbar puncture shows cell count of 3, the blood count 7,000 whites. On account of the fact that the boy had ear discharge in the left ear and that the cerebellar hypotonus was on the left side, and in spite of the fact that the other cerebellar signs pointed to the right side, it was decided to operate on the left cerebellar region by the mastoid route. No abscess was found. The patient developed respiratory failure while on the operating table. He was kept alive by artificial respiration for one day. The post-mortem examination showed a gliomatous cyst in the left cerebellum.

CASE 3.—W. C. Age 23. Five years ago struck by a brick over the head. Two months ago had what he calls a sun-stroke; sensation of "giving way." He has developed the general signs of headache, which was felt in the frontal region radiating into the back of the head. Vomiting occurred from time to time, and there has been considerable giddiness. Examination of the cerebellar symptoms show very definite difficulty in pronation and supination of the left arm; some staggering in walking, and he falls to the left side. Marked hypotonia of the whole of the left side. On examination of the cranial nerves one finds quick nystagmus to the right side, slow to the left; marked weakness in masticators of the left side; weakness of the external rectus muscle of the left side; weakness of the whole of the left face. No affection found of any nerve below this level; the reflexes are equal, and unaltered on both sides. Diagnosis is made of a left extra-cerebellar tumor pressing into the cerebellum. On the morning of the operation patient died suddenly from respiratory failure a few hours before the time fixed to operate. Post-mortem examination revealed an extra-cerebellar tumor growing from the meninges and pressing into the left cerebellar lobe.

CASE 4. L. B. Age 29. Six months ago, following on child-birth, felt weak and tired. Noticed dizziness as soon as she began to get out of bed following her confinement. Com-



plained of difficulty in vision and vomiting before her breakfast for some two or three months. The general signs in the case are headache, which was felt on the right side behind, but mainly over the temples. Vomiting, which occurred for the first two months but for the last two months had stopped. Optic neuritis of severe degree, the right side greater than the left. Dizziness of slight degree. Cerebellar signs. There appeared to be slight impediment of the power of pronation and supination of the left arm, but hardly sufficient to be diagnostic. She staggered on walking, but to a very slight degree; the tendency to fall was to the right side. Examination showed slight weakness of the left external rectus, which only recently had occurred, and was thought to be probably therefore a late symptom of no value in diagnosis. The seventh nerve was normal. The eighth nerve showed noises and some degree of deafness in the right ear. The reflexes on both sides are equal and increased, plantar reflexes flexor. It was decided that the tumor lay in the right cerebellar region on account of the deafness and weakness over the right face, and because the patient staggered to the right; while the right weakness of the external rectus was thought to be due to late general pressure.

Strange to say the same result occurred as in the last case referred to. On the morning before the operation the patient was taken with respiratory paralysis and died, despite the assistance of artificial respiration. Post mortem showed a tumor to be present in the left cerebellar region.

## THE TREATMENT OF URETHRAL STRICTURE

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In considering the treatment of a case of simple stricture unaccompanied by a complication such as acute retention of urine, extravasation of urine, fistulae or periurethral abscesses, the first step is to ascertain the position and number of the strictures and whether any are instrumentally impermeable, that is, no instrument can be passed through the lumen. One usually finds a more or less tight stricture in the bulbous urethra and one or two wider ones in the penile portion. The routine treatment of a permeable stricture may be considered to be intermittent dilatation, and that of an impermeable one some form of perineal urethrotomy.

The urethra is examined in the following manner:—

The anterior urethra is irrigated with 1 in 5,000 oxycyanide of mercury solution, one or two c.c.'s beta-eucaine lactate are then injected through the meatus and if possible massaged back through the stricture. The patient holds the solution in the urethra for three or four minutes by compressing the meatus. Gum elastic olivary bougies are then passed into the urethra, starting with a fairly large one, as No. 12F. and rapidly going down the scale until one is found which will pass into the bladder.

Should the stricture be very tight, filiform bougies will be needed; these are best made with a malleable metal core to give body to the instrument; the metal must be quite soft and malleable, or the instrument becomes dangerous.

In manipulating small instruments the penis should be maintained a little on the stretch to obliterate folds in the mucous membrane. A little sterile olive oil injected through the meatus and if possible through the stricture is a better means of lubrication in difficult cases than merely smearing the vehicle on the bougie. Should the patient pass a dribble of urine it is sometimes possible to slip the instrument through more easily at that moment on account of the relaxation of spasm. Cases requiring filiforms often have false passages; these and large sinuses of Morgani are liable to catch the point

of a small instrument; should this occur the instrument is left in the pocket and another passed alongside it in the hope that the second will find the right passage. A filiform should first be used perfectly straight, and if one fails to find the opening one bends the instrument to a slight angle about one-quarter inch from the tip and systematically searches the face of the stricture by rotating the instrument. Finally, the urethra may be examined endoscopically, the position of any false passages noted, and the filiform passed under direct vision.

The differential diagnosis of stricture lies between stricture, false passage, and spasm of the compressor urethra muscle. When the instrument is in a false passage it will not be gripped and can be withdrawn quite easily; the resistance to progress or withdrawal gives a different feel from the resistance given when the bougie is gripped in a stricture. Spasmodic stricture is recognized by the position of the supposed stricture, the elastic obstruction contrasted with the "deadened touch" of the true stricture, and finally by the urethroscope.

A stricture should not be labelled impermeable on a failure on one attempt; a second attempt two or three days later after a purge and a hot bath may prove successful.

The stricture having proved permeable, intermittent dilatation is carried out as follows: The urethra is cleansed and anæsthetized as before described, a bougie which "fits" the stricture is passed; after a few minutes it is withdrawn and replaced by the next larger size; this is replaced by a third if possible. After four days' interval one passes an instrument corresponding to the one passed at the end of the last seance and follows it by two more. The treatment is continued in this way, gradually increasing the intervals between the visits as the calibre of the stricture widens; thus at 12 or 14F. seven days elapse between the visits; at 21F. three weeks; at 25F. six or eight weeks; then three, six and twelve months. No absolute rule can be laid down either as to the size to which the urethra should be dilated or the time elapsing between the later visits. Some strictures recontract very quickly.

Otis has worked out that the normal urethra bears a definite relation to the circumference of the flaccid penis as follows:—

|                             |               |
|-----------------------------|---------------|
| Circumference, 3 in. ....   | Capacity 30F. |
| Circumference 3.25 in. .... | Capacity 32F. |
| Circumference 3.5 in. ....  | Capacity 34F. |



It is reasonable to suppose that when a urethra is not dilated to its original size the stricture is not cured and will recontract.

When a diameter of about 18F. is reached steel bougies should be used instead of gum elastic ones, as the larger sized gum elastic instruments are stiff and unwieldy. In cases where stricture is complicated by spasm, Harrison's whip bougie will be found to pass more easily than other forms.

Other methods of dilatation are the rapid, the continuous and the electrolytic. The rapid consists in passing a whole scale of instruments one after the other under general anæsthesia; it does not dilate the stricture, but ruptures the submucous fibrous tissue with or without tearing the mucous membrane, a good deal of free and submucous hæmorrhage takes place, and on healing the wounds often contract, producing a stricture which is a very good rival to the original one.

The continuous method consists in "fitting" the stricture with a small catheter or filiform and tying it in for two days; the stricture will then be found to take an instrument three or four sizes larger, with which the process is repeated; continuing in this way the urethra may be completely dilated in about ten days; results, however, are not permanent, for the urethra may contract to its original calibre in the same short period. The method however has its use in getting a start in those cases where a No. 1 or 2F. is introduced with difficulty. Intermittent dilatation should be resumed at 4 or 5F.

Electrolytic treatment is applicable only to strictures where a metal sound can be used, i.e., from 8 charriere upwards. The bougie next larger in size to the one which fits the stricture is passed down to the stricture and attached to the negative pole of a galvanic circuit, by means of a pair of artery forceps; the positive pole is placed on the patient's thigh, and a current of 8 to 10 milliamperes passed; in from three to five minutes the sound will slip through the stricture. Two sizes are used at each treatment, which occur once a week. The treatment is said to be unsatisfactory in that it causes urethritis and prostatitis.

Complications following dilatation are: false passages caused by rough handling, infection and syncope.

The following are contra-indications:—

Old cartilaginous or recurrent strictures; these rarely respond to dilatation.

Cases which rigor or bleed very readily, even after the most careful handling.

Cases complicated by fistulæ or periurethral abscesses.

Cases complicated by severe cystitis, vesical calculus, enlarged prostate, bladder growths or pyelitis.

And finally, when the patient is unable or unwilling to spare the time for gradual dilatation.

In these cases one achieves a short cut to the passage of large instruments by performing internal urethrotomy.

Internal urethrotomies are of two varieties, namely, those cutting away from the bladder and those cutting towards the bladder. The best example of the first variety is Civiale's. The instrument is passed through the stricture and by pressing a lever a spring knife is made to project which divides the stricture as the instrument is withdrawn. The stricture must have a calibre of at least 8F. to enable the instrument to pass. Most strictures which can be dilated with bougies to this degree can be cured by dilatation. The best example of the other variety is Thomson Walker's modification of Maisonneuve's instrument. This consists of a triangular knife mounted on a flexible wire; the knife cuts on both edges and is surmounted by a small blunt button which lifts the supple mucous membrane from the cutting edge; as soon as infiltrated part is reached the knife cuts its way through. The knife rides in the groove of a staff curved to a true urethral angle; the groove stops just beyond the curve, thereby preventing injury to the prostatic urethra by the knife. The staff is inserted through the stricture by the aid of a filiform bougie which screws on to its end; the metal mount of the filiform is continuous with the malleable core, thereby obviating any possibility of the two parting company and the filiform being left in the bladder when the instrument is withdrawn.

The technique is as follows:—

A general anæsthetic is advisable. The urethra is irrigated with a 1 in 10,000 silver nitrate, a guide is passed and the staff screwed on; this is then lubricated and passed into the bladder, the stiffening rod is withdrawn and an assistant holds the guide firmly in the middle line, the knife is inserted, passed to the end of the groove and withdrawn; the guide and filiform are then also withdrawn, three or four large bougies (steel) are passed, about 24 to 28F., and a No. 20 catheter tied in. Should the meatus be at all narrow meatotomy should be done to facilitate the subsequent passage of large sounds; the cut edge of skin and mucous membrane should be united with catgut. The bladder is washed out through the catheter with

silver nitrate solution and the patient returned to bed. The catheter may be plugged and the urine withdrawn every two hours, or a rubber tube attached leading to a receptacle under the bed. The catheter is retained two days as a routine, and then removed and the anterior urethra gently irrigated; the patient may now go back to work. Two weeks later a large steel is passed. This is repeated at intervals of three, four and six weeks, etc., as indicated. The patient should keep his stricture under observation for two years; if it then shows no signs of recurrence it may be considered cured.

Operative complications are:—

1. Severe hæmorrhage. This is rare and is treated by compressing the urethra between the catheter and a pad on the perineum held in place by a tight "T" bandage; the bladder should be irrigated through the catheter to prevent the blood clotting; if clot retention occurs the catheter must be removed and the bladder evacuated through a cannula in the same manner that one evacuates the fragments after lithotomy.

2. Rigor on first passing water. This does not often occur if a catheter is tied in at the operation, but is of frequent occurrence if this is not done. It usually only occurs once, and seems to be a reflex from the urethral wound.

In about 120 cases submitted to this operation at St. Peter's Hospital, London, in 1913, there were no deaths. One case bled severely, causing clot retention and necessitating evacuation of the bladder with an evacuator.

As regards impermeable stricture, the routine treatment is Wheelhouse's operation. The search for the urethra is facilitated by the injection of a half per cent. solution of methylene blue through the meatus, as described by Cecil, before commencing the operation. If one fails to find the channel one dissects back in the middle line, searching for the dilated urethra behind the stricture, or exposes the apex of the prostate and enters the urethra through it as advised by Young. If this fails, suprapubic cystotomy is performed, a bougie passed through the internal meatus to the stricture and the perineal operation continued. Any strictures anterior to the impermeable one should be divided with Civiale's urethrotome and the external meatus enlarged if necessary.

Strictures complicated by perineal fistulæ are treated by combined internal and external urethrotomy. Internal urethrotomy is first performed with the Thomson Walker instrument, and a steel bougie left in as a guide; the patient is then put in the lithotomy position, the membranous urethra opened, fibrous tissue around the deep stricture excised, and all the



fistulae laid open and scraped, a perineal drainage tube is fastened into the bladder, the deep tissues brought together with catgut and the wound partially closed; gauze plugging is inserted into any septic cavity. The after treatment is that of a routine Wheelhouse operation.

Attempts have been made, where the stricture is single and not too far back in the membranous urethra, to obtain a radical cure by excision of the stricture and end to end union of the healthy urethra. To do this the stricture is fully exposed from the perineum, the urethra is divided anterior and posterior to the stricture and held on silk loops, the strictured portion and surrounding fibrous tissue is dissected away and both ends of healthy urethra freed for some distance in the same manner that one undercuts skin to close a large wound. The two ends of the urethra should come together without tension. A sound is then passed and the urethra united around it with fine catgut, the surrounding tissue is sewn over the union and the skin united, leaving room for a small drain to the subcutaneous tissue. As much as four or five centimeters of urethra may be excised safely. The success of the operation depends on obtaining primary union of the urethral wound, a temporary suprapubic drainage is therefore established and the foot of the bed elevated to keep the urine off the sensitive trigone so that no dribble of fluid may be admitted to the urethra. No inlaying catheter is used as the irritation causes fibrosis of the wound.

Traumatic strictures are always surrounded by a large amount of fibrous tissue, and often recur rapidly after internal urethrotomy, in which case a perineal excision must necessitate the removal of so great a length of urethra that the ends could not be approximated; however, one will probably find that the fibrous infiltration does not entirely surround the urethra for the whole length of the stricture, but tails off on the floor and sides; this is excised, leaving a healthy roof; as much union as possible is done around the bougie and the remaining gap left to granulate round an inlying catheter. Subsequent treatment by bougies is usually required to prevent recontraction.

Finally, when a strictured urethra is so intractable that a permanent drainage of the bladder is necessitated, the discomfort of the patient is lessened if the bladder is drawn in a cone-shaped projection through the rectus muscle. The author had one case in which the patient was enabled to keep himself dry without the aid of any apparatus, provided he drew off his urine by catheter through the valvular fistula every five or six hours.

## Reports of Societies

### PROCEEDINGS OF THE SECTION OF SURGERY, ACADEMY OF MEDICINE, TORONTO, DECEMBER, 1914

The December meeting of the Surgical Section of the Academy of Medicine was held on the 15th, Dr. C. L. Starr in the chair.

The first paper was by Dr. W. E. Gallie on Tendon Fixation in Infantile Paralysis, an abstract of which follows:—

The principle of the operation is to make the paralysed tendon act as a ligament. With a suitable incision for exposure of the tendon, the periosteum is incised for about an inch and a half and turned laterally. With a gouge a groove is then made in the bone. An assistant then brings the foot into an exactly corrected position and the tendon freed from its sheath and scarified is placed in the groove. A kangaroo tendon is then used to fix the displaced tendon at the lowermost part of the groove and is so placed that when the tension is relaxed the foot stays in the corrected position. The periosteum is sewn together over the tendon with No. 1 chromic catgut and the wound closed. A plaster bandage is put on and left for six weeks, when the child will be able to walk.

Dr. Gallie's first communication in the Academy on this subject was nearly three years ago, when he presented three cases. He is now able to report that the majority of his cases have been highly satisfactory. He is sure that the tendon increases in length with the growth of the limb and that it does not stretch; moreover, there is at times some restoration of power in the paralysed muscle.

#### DISCUSSION.

Dr. Stewart Wright considered the paper difficult to criticize. Few diseases left so much wreckage behind them, yet there were few which left so much for the ingenuity of the surgeon. He thought Dr. Gallie's operation had a very wide application.

Dr. C. L. Starr expected to hear more criticism from this new work. In his opinion the operation described was the best

for these deformities. The patients show beneficial results better than the plaster casts or the lantern slides. It was the more gratifying inasmuch as other procedures so often fail. Another point was the absence of danger in partially destroying the epiphysis when making the groove.

Dr. Gallie in reply took occasion to thank his chief, Dr. C. L. Starr, for having given him the opportunity to develop tendon fixation. When one can handle some two hundred cases the operator is under the best possible conditions for doing the very best work.

Dr. Robin Pearse then read a paper on the Treatment of Urethral Stricture. (See page 62.)

#### DISCUSSION.

Dr. Shuttleworth was glad to see Dr. Pearse call attention to the intermittent dilatation. He himself starts with soft, and when dilatation has proceeded completes with steel instruments. It is useless to attempt to pass small steels into the urethra, as a false passage is almost sure to result. Most cases, however, require constant attention, and the old rule of twice a week for a month, once a month for a year, and then once a year for the rest of his life is the one advised by Dr. Shuttleworth. In doing a Wheelhouse operation he thought it a mistake to waste much time trying to find the anterior opening of the stricture, but at once pass a catheter into the bladder. He briefly referred to the case of an old man with a fistula at the periscrotal angle which was of long standing. At the operation he found two stones about the size of large beans in the bulbous urethra and a larger one conical in shape one and a quarter inches in length and three-quarters of an inch in diameter at the base lying in the deep urethra, acting apparently as a ball valve. He wanted to know how Dr. Pearse would deal with such a case.

Dr. George Wilson thought the intermittent method of dilatation an ideal one in very many cases, but in the very difficult ones it was hard to carry out, and in such he preferred the rapid method. This in brief was as follows: Having on hand about a dozen filiform whalebone bougies, one sits beside the patient, passes the first down as far as it will go, then a second, and so on till all are inserted. Then each is taken in turn and gently lifted up and down till finally one passes into the bladder. The others are removed. A railroad catheter, which is nothing more than a sound with the distal end per-



forated for half an inch, with a groove on the back, is then threaded over the filiform, and, thus guided, is readily passed into the bladder. The urethra may then be rapidly dilated to No. 15 or 17 English. Once the railroad catheter has been passed the others go in comparatively easily and do not add materially to the shock. Dr. Wilson did not agree with the author of the paper in considering cystitis as a contra-indication to any ill result. He had catheterized the ureters in several such soon after the dilatation and found pus coming from both the kidneys. Instead of passing a tube into the bladder from the perineum in external urethrotomy Dr. Wilson preferred to pass a catheter through the external urethra and on into the bladder, fixing it in the perineum by a silkworm gut suture which does not penetrate the catheter lumen. He has had such a catheter remain *in situ* for two weeks and no irritation of the urethra ensue. It thus ensures a more perfect urethral channel subjacent to the perineal incision.

Dr. Copeland considered it advisable to give some urinary antiseptic previous to any of these operations. He asked whether fibrolysin was of any value in reducing the stricture.

Dr. Primrose referred to the extreme necessity of using the utmost gentleness in dealing with these cases, else disastrous results may follow. Joseph Bell, of Edinburgh, his preceptor, was, in his opinion, probably the most expert in dealing with such cases at that time, and he was so patient that the onlooker might readily think that he had gone to sleep over the procedure. In the presence of fistula or extravasation of urine catheterization is extremely difficult, and it is advisable to open the bladder and do retrocatheterization. Then with a perineal incision with the catheter as a guide the case is readily dealt with. Retention of urine from an impermeable stricture calls for prompt treatment. He thinks puncture of the bladder by the perineal route with a finger in the rectum as a guide (Cock's operation) the best procedure. Later one finds that the stricture can generally be passed. He referred to a man whom he had seen with a perineal fistula and likewise some urine per rectum. Under anæsthesia the finger in the rectum discovered a calculus which had ulcerated through from the bladder.

Dr. Pearse:—

In reference to the cure of a stricture he thought that if the patient showed no signs of recurrence for a period of two years the case could be considered cured. In regard

to the fistula at the periscrotal angle he thought a stone in the urethra was quite commonly associated. If the fistula were in the penile portion it might be dissected out and the ends united. If feasible, a long foreskin is useful to close the opening, being split along the dorsum and turned back so that the skin surface is next to the lumen, the blood supply remaining from the artery to the frenum. He thought that whalebone bougies would readily produce false passages. He was of the opinion that rapid dilatation did no good whatever. He always gave urotropine beforehand and in an acid medium. The best salt to render the urine acid was, he thought, acid sodium phosphate ( $\text{NaH}_2\text{PO}_4$ ), and explained how one could detect the presence of formaldehyde in the urine. He had no experience with fibrolysin. He thought one should drain suprapubically cystitis complicated by stricture. In cases of retention he gives the patient a hot bath with a hypodermic of morphia. If not successful he punctures the bladder with a fine cannula and the patient is generally able to pass his urine six or seven hours later. If he can't then he uses a perineal drain.

The next item on the programme was a report of a strangulated femoral hernia in a man of 54 by Dr. Shenstone, who had performed the Moschowitz operation.

#### DISCUSSION.

Dr. R. E. Gaby said that he had seen Dr. Shenstone doing both his operations by the Moschowitz method and had done one himself. One was impressed with the splendid view of the parts. He did not think Poupart's ligament could be made adherent to the fascia over the pectineus either by ligature or by pegs into the bone. In this operation Poupart was very easily brought down to Cooper's ligament. Then, too, the sac, if adherent, can be readily dissected out.

Dr. George Wilson asked how Dr. Shenstone accounted for the size of the swelling in a Richter's hernia. He pointed out that it was most important that the sac and that only should be ligatured when tying off the sac. If the transversalis fascia, for instance, were included in the ligature, then the peritoneum assuredly cannot properly retract into the abdomen.

Dr. Hay had looked over his records and found that he had had four femoral herniæ in males, two of which were strangulated. The tumor was generally small in these cases.

Dr. Primrose thought from a consideration of the anatomy of the part that the operation should be a good one, especially

in strangulated cases. In some instances the femoral swelling is very large, yet but a small quantity of bowel in it. He had successfully resected the bowel strangulated through the femoral ring.

Dr. Silverthorne mentioned a case under his care in which the femoral hernia was strangulated. He attempted an end to end union, but the upper end was so infiltrated that he was not able to make a gas and water tight junction. Consequently a fistula was made to tide the patient over.

Dr. Shuttleworth thought that where the bowel was strangulated and gangrenous no attempt whatever should be made to restore the lumen of the gut. The patient is almost sure to die. He remembered a patient upon whom Dr. Gallie had resected a portion of dried intestine and many weeks elapsed before a recovery from the various complications ensued. A funeral following a surgical operation brings discredit upon surgery.

Dr. Copeland suggested that the thigh be flexed and internally rotated before cutting Gimbernat's ligament.

Dr. Primrose did not agree at all with the position taken by Dr. Shuttleworth. There should be no routine treatment of these cases. Each must be judged upon its merits and resection was not necessarily fatal at all.

Dr. C. L. Starr related one of his early experiences with femoral hernia. He resected the gangrenous area and united the ends by a Murphy button, but to his surprise he wasn't able to return the bowel to the abdomen.

Dr. Shenstone in reply said that there was considerable thickening of the properitoneal fat and then the sac was distended with blood-stained fluid. He emphasized the importance of obliterating the femoral ring, which could be much more securely effected by the operation described. Peculiarly enough seventy-five per cent. of the femoral herniæ coming under his observation had been in males.

Dr. Silverthorn then presented notes of a case of carcinoma of the penis and one of gangrene of the penis.

#### DISCUSSION.

Dr. Primrose referred to the researches of Jonathan Hutchinson, Sr. The latter had investigated a great many cases, and thinks there is no recorded case of carcinoma of the penis in the Jewish race. Some of these cases develop with extreme



rapidity. A month ago Dr. Harvie of Orillia sent him a piece of tissue from the penis which proved to be epithelioma. At operation the glands of each groin were removed and malignancy was present in each side, although only three weeks had elapsed since patient first noticed anything wrong.

Dr. Shuttleworth told of a man 66 years old who four years previously had noticed a white patch on his penis. The penis, testicles and glands were removed en masse and weighed four pounds. Curiously enough no carcinomatous deposits were found in the glands, although they were very large. He had no loss of weight.

Dr. H. B. Anderson thought that Dr. Silverthorn's case must have been one of thrombosis, and not due to an infection of any kind. Recently he had seen a man with extensive sloughing of the tissues of the neck following upon the application of carbolic acid in glycerine. Again he had seen extensive sloughing follow the application by a doctor of pure carbolic to prevent the spreading of an ulcer. He believes the condition of cancrum oris so common formerly was of the same nature, and asks if the application of strong caustic is good treatment in these ulcerated processes.

Dr. Silverthorn in reply said that the man denied venereal infection, and he believed him. The injury he thought was not severe. At least it produced no discoloration. He thought it was an infection process allied to phagedena, but at the same time there was no glandular enlargement and no pain. He did not know whether there was any rise in temperature or not, as the patient was at once taken to the operating room.

GEO. EWART WILSON,

*Editor.*

## Progress of Medical Science.

### MEDICINE

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IN CHARGE OF W. H. B. AIKINS, F. A. CLARKSON, BREFNEY  
O'REILLY AND F. C. HARRISON.

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#### The Heart in Pneumonia

Wilson (*Jour. Am. Med. Assoc.*, Sept., 1914) considers that the outcome of a given instance of pneumonia may be reckoned according to the vitality and endurance of the heart. Only rarely does the mechanical obstruction of the lungs prove a serious factor. Often at the necropsy we note the difference between the severity of the pneumonic process and the toxæmia compared with the apparent damage sustained by the heart. In the bronchocatarrhal form of pneumonia we practically never observe a sthenic patient or a heart which gives either clinical or post mortem evidence of strength, stability or endurance.

From the careful study of a large number of cases Wilson concludes that the heart shows post mortem evidences of toxæmia in every fatal case of fibrinous or bronchocatarrhal pneumonia. In his experience, the septolic pressure has furnished a very uncertain prognostic index.

As regards treatment, the most telling advantages seem to come from the systematic and thorough emptying of the intestinal tract. He considers epinephrin and pituitrin dangerous in the presence of a weak heart.

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#### Significance and Effect of Pains

J. M. T. Finney in the Ether Day address states that his own clinical observations support the contention of Ross that there are two forms of pain, splanchnic and somatic. Any nerve ending may be sensitive to some one form of stimulation which has been called "the adequate stimulus" but insensitive to all others. The adequate stimuli vary for different parts of the body—therefore visceral pains are not of the ordinary tactile or thermal types to which the skin and mucous membranes so promptly respond. The threshold of pain may be raised or

lowered according to certain established conditions. Tension in some form or other is the commonest, perhaps the sole cause of visceral pain. The referred pains arising in the course of disease of the internal organs increase the difficulties of diagnosis many fold. There is a psychology of pain. Some one has said that pain is the resultant of two factors, the lesion and the patient. It is difficult to estimate the degree of pain, but there are certain signs of suffering which are unmistakable—the pinched features, the knotted brow, the rolling eyes with widely dilated pupils, the ashen countenance, the cool and clammy skin, the thready pulse, the increased blood pressure, the hands alternately clenched and opened, the cries and groans, and the bodily contortions—all these present a definite picture. The fear of pain plays a large part in its psychology. While on the one hand pain breaks down the powers of inhibition so that the individual who has at first exhibited fortitude becomes a complaining creature or one embittered or hardened, nevertheless on the other hand pain has an ennobling influence and brings out the higher qualities of heart and mind. Pain as a diagnostic sign is of the utmost importance. Ninety per cent. of all diseases either begin with it or at some time in their course are accompanied by it. Pain arising in inflammatory processes, particularly of bone, is described as “boring” or “throbbing” or “jumping” in character. Nerve pains are burning, shooting, or stabbing. The terms “stinging” or “sticking” describe the sensation experienced early in the course of cancer of the breast. The postprandial pain of gastric or duodenal ulcer, and the pain of anal fissure, increasing for several hours after defæcation, are characteristic. Pain is notoriously worse at night. Weather conditions have an important effect upon pain. Individuals of the phlegmatic type bear pain better than others. Abdominal pain is usually accompanied by spasm of the overlying muscles. The sudden cessation of pain in the course of an acute inflammation of the right side of the abdomen may be of the gravest import, particularly if not associated with a corresponding drop in the temperature, pulse-rate and leucocyte count. Under these circumstances it is an unfailing index of gangrene or rupture of the appendix or of a sudden breaking down of the barriers between an abscess and the general peritoneal cavity. It is essential to the successful treatment of any case in which pain is a prominent feature to know when to withhold anodynes so as not to mask the clinical picture, and when to administer them.—*The Medical Record*.



**The Value of External Heat to Babies who are Ill.**—Herbert French, M.A., M.D., F.R.C.P. (*Guy's Hospital Gazette*, Sept. 12, p. 344.)

The value of external heat to babies who are ill can hardly be exaggerated. In these days of open windows and open-air treatment, so very important to adults, there is a considerable tendency to think that babies need identical treatment in this respect. This may be true of healthy babies, infants, and young children, but it certainly does not apply to infants who are sick. If one were to cool down the external tissues of an elephant so that they were chilled to a depth of 2 in, all round the animal it would be some time before this external cold would have any direct influence upon the underlying organs, because the bulk of the animal is so great. If, however, one were to cool down the external tissues of a baby to a similar extent the viscera must necessarily become affected by the cold almost at once. The only way to prevent their becoming affected thus is for additional calls to be made upon heat production in the child's body and this entails a repeated drain upon what one may call the fuel of the engine. Sick children take food badly as a rule and, broadly speaking, anything which can conserve their fuel is good for them. It is probably in this way that oiling the surface of the child's body does good. The oil is a bad conductor of heat, and many a marasmic child has been saved by the external application of oil not so much by any absorption but by the resultant saving of heat loss and thus of fuel consumption. A greater proportion of the food taken becomes available for the intrinsic service of the body organs. One can do a good deal more towards saving the infant's fuel by taking care not to expose the body to external cold. If an examination of the chest has to be made it should be done in a very warm room or near a fire, and not at the ordinary temperature of a ward. Infants and young children who are ill often do best in rooms which to healthy adults seem oppressively hot. This is by no means incompatible with proper renewal of the air in the room if the ventilation is seen to properly. The writer would rather nurse most sick infants in a hot room even if it were stuffy than in a cold one that was well ventilated.

A simple expedient for maintaining the external warmth of a baby whilst at the same time allowing it fresh cool air to breathe is now used extensively in Guy's Hospital. A blanket covers the infant up to the neck. The face is exposed to the ordinary fresh air of the ward. A small cradle is placed outside the blanket covering the child's body, within the cradle are hung some ordinary electric lights. The cradle is covered with one or more blankets which are well tucked in round the bed. The

electric wire of the lamps passes in beneath them. The electric switch is turned on, and the temperature within the cradle watched by means of a thermometer.

This treatment is most beneficial in the treatment of marasmus, diarrhoea, and vomiting with a tendency to collapse, ordinary bronchitis without high fever, and in many other similar conditions. The heat loss prevented by it does a great deal towards accelerating the child's recovery. This treatment should not be used in conditions of high fever.—*Medical Review*.

### Four Common Types of Heart Disease

In a paper before the American Medical Association and reported in the journal (Oct. 24, 1914), Calot attempts to classify heart diseases according to etiology.

He makes four classes: Rheumatic (embracing nearly half), syphilitic, arteriosclerotic and nephritic. In order to re-classify heart lesions more satisfactorily than has been done in the past, four relatively new tests are made use of: the Wassermann, the estimation of the blood-pressure, X-ray examination of the chest, and the "red-test," as he designates the use of phenolsulphone-phthalein.

Under "rheumatic" he would place, besides the ordinary "rheumatic fever," chorea, acute tonsillitis and primary endocarditis. These patients seldom die a mechanical or "heart-death," usually an infectious death. The mitral valve, the pericardium and the myocardium are the favorite seats. If the patient survive the second decade, he may have twenty and even forty years of hard work.

Syphilitic heart-disease took in many men between 20 and 40, with a positive Wassermann. Probably a more searching inquiry would transfer many more to this column.

The arteriosclerotic type was seen in elderly persons with sclerotic peripheral arteries and hypertension, often with angina pectoris, and always with negative Wassermann reactions. Some of these patients live for many years in comparative comfort, while others die suddenly of coronary stenosis or cerebral hæmorrhage.

Nephritic, or better, nephrogenic heart disease is the term he applies to cases of weakened and enlarged heart, apparently resulting from the hypertension of glomerulonephritis. Such cases are associated with more marked urinary anomalies than those seen in the arteriosclerotic group, and especially the functional weakness with the "red-test" is most marked. The response to

cardiac stimulants and to drugs like theobromin sodium salicylate is feeble. The average age of this group is 36; in the arteriosclerotic, 59.

This classification does not include "goitre hearts," "obese hearts," athletes' hearts, and perhaps a few others, but was wide enough to take in 93% of some 600 successive and unselected cases of failing heart.

Sixty-one per cent. of the rheumatic group were females, and in 60% of the cases the lesion occurred before the twenty-second year. The typical rheumatic patient is therefore a young girl. Practically all stenoses belong to this group.

F. A. C.

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## OBSTETRICS

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IN CHARGE OF ADAM H. WRIGHT, K. C. M'ILWRAITH, AND  
HELEN MACMURCHY.

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### Pituitary Extract in Obstetrics

Druskin calls attention to the fact that during pregnancy the pituitary gland becomes enlarged, reaching at the end of pregnancy almost double its original size. After pregnancy involution takes place, but the gland never again shrinks to its original size. The author reports thirty-four cases, in which he used pituitary extract. The extract, like any other therapeutic agent, must be used with discretion and judgment; its use is safer than any operative procedure in obstetrics, consequently no forceps, no pubiotomy, no Cæsarean section in the lesser degrees of pelvic contractions, no forcible dilatation of the cervix should be tried without previous use of pituitary extract. The third stage of labor is always shortened by this preparation; no Credé nor manual separation of the placenta should be attempted without it. The best method of administration is intramuscular. The injection is not accompanied by pain and the effect is prompt.—*Amer. Jour. of Obstet.*

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### Laminaria in Dilatation of the Cervix. By Calmann.

In rapid dilatation the greatest danger is tearing of the cervix; the muscle has not time to accommodate itself to the strain. Another danger is subsequent atony. The laminaria, although slow, cause dilatation more closely resembling that of a normal labor; the pain can be controlled by morphine.—*N. Y. Med. Jour.*



**Scopolamine-Narcophin Seminarcosis in Labor**

Harrar and McPherson, in earlier attempts, used scopolamine and morphine not only for the initial dose, but for succeeding doses. Bad results were due to excessive doses, to unstable and deteriorated preparations of scopolamine. The authors conclude that this is a valuable method of abolishing recollection of the ordeal of labor in from sixty to seventy per cent. of cases. There are certain limitations. In the ward service of a large hospital it is only in a fraction of the total admissions that scopolamine seminarcosis is feasible. Patients many times come in too far advanced in labor and often the resident staff is too busy to give the case the prolonged personal attention that is necessary. The method is proper in general practice only in private houses, where the finances of the patient permit the transfer of a complete working force to her room for the entire duration of labor.

—*Ame. Jour. of Obstet.*

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**White Slavery**

Out of the mass of hysterical untruth emerges the address before the International Purity Congress at Kansas City, by Miss Margaret E. Luther, Superintendent of the Florence Crittenden Home of N. Y. Speaking from experience, she states that the majority of girls who go wrong are not alone in the world nor are they necessarily wage earners. Their downfall is due to bad homes, and the evil begins early in life. Of 450 girls brought before the New York Women's night court, 289 were not over 18 and 116 were only 16. Stories of locked doors and barred windows—in other words, of literal white slavery—are mostly imaginary; the slavery is psychic. The same factor of lack of good home influences and of early degradation is manifest if the matter is viewed from the standpoint of a male—we can scarcely use the word man. One judge declared that 90% of the sentences for white slavery were imposed on boys less than 22. Contrary to most reformers, Miss Luther realizes that people cannot be made good by law. She considers the N. Y. State laws as good and as strong as possible. It is the home influence that needs strengthening. We think that reform along social lines would be expedited if it were more clearly recognized that, primarily, the male white slaver is what is technically known as a pup. He differs only in degree from the youth who deliberately seeks a wealthy marriage—and note that we do not believe that difference in wealth should interfere with the natural course of human affections,—from the promoter who specializes on the inexperienced widow and orphan, from the man who plays on his attractiveness to the female sex to secure loans and gifts.—*Buffalo Med. Jour.*

## Selected Article

### FRENCH CLINICAL LECTURE ON EARLY SYMPTOMS OF CANCER OF THE RECTUM

BY PROFESSOR QUENU,  
Surgeon to the Cochin Hospital, Paris.

Since you have attended my wards you have had opportunities of observing some ten cases of cancer of the rectum. Several of them were inoperable by reason of the spread of the mischief, while others were within the limits of operability, but in none of them was the diagnosis made early in the course of the disease in spite of the fact that, in most instances, medical advice was sought at the very beginning. Almost always their troubles were attributed to piles or enteritis, without direct rectal examination for the purpose of verifying one or other of these diagnoses.

The most striking and the most lamentable of these cases is that of a girl, *æ*t. 17 years, admitted in April last, upon whom I recently operated. She is tall, pale, thin. She tells us that she has been more or less anæmic ever since she began to menstruate and had been suffering from dyspepsia for several months when, in July, she first noticed blood in the stools. She went for advice to the out-patient department of a Paris hospital in which she had previously been a month under treatment, and there, without any examination, they ordered sitz baths. The rectal bleeding recurred every fortnight or so aggravating the pre-existing debility. She had suffered from constipation, and this became more pronounced, so much so that she became unable to go on with her work as a general servant, and was admitted to a hospital, where she remained six months. During this period she never had a motion except on taking an enema. Ultimately she came to this hospital in April.

She told us that no rectal examination had ever been made. An inch and a half from the anus the finger came upon a hard mass occupying the posterior three-quarters of the gut, leaving a band of healthy tissue on the anterior wall, limited above and behind, adherent to the sacrum. In consequence of these adhesions we had the greatest difficulty in dragging the rectum down. The prognosis is, of course, much less promising after a late operation than when performed early, but in spite of this the immediate results of the operation were satisfactory, she had no

more pain, and her strength began to return, so much so that, as you see, two months after the operation, she had gained many pounds in weight, her cheeks are rosy, and she is able to assist the nurses in their work.

There is a lesson to be learned from this case, *viz.*, that any trouble in connection with defæcation, especially if accompanied by loss of blood, points strongly to the immediate necessity for rectal examination, *whatever be the age of the subject.* The youthfulness of this patient is the only excuse I can see for the practitioners who failed to make this examination because one could hardly suppose that epithelioma of the rectum was likely to be present in a young woman, æt. 17. It may be well to mention that in the year 1899 I collected a dozen instances of cancer of the rectum in subjects under 20.

The rectum is, of course, only exceptionally the seat of cancer in subjects under 20 years of age, but its possibility must not be lost sight of. It ceases to be rare between 20 and 30. In 1899 I had three cases of my own, and saw two others, æt. 21 and 22. Tuttle, out of a hundred patients of his own, had eight between 21 and 32. Nevertheless it is between 40 and 60 that cases of cancer of the rectum are of most frequent occurrence.

Now let us consider what are the earliest symptoms. In the case of this girl, as you have seen, bleeding was the first indication. Of the other patients with this form of cancer at present in our wards, one, æt. 63 years, in good health in October, first complained of frequent calls to stool, the fæces being streaked with bright blood. He consulted a doctor, who diagnosed enteritis and dieted him. The calls to stool became more imperative and his efforts resulted in the expulsion of material like crushed strawberries, with occasional blood clots. In January he found that he had lost 13 lbs. in weight; this scared him, and he consulted yet another doctor, who, still without any rectal examination, gave him antiseptic cachets. By this time the calls numbered eight or nine a day, the constipation was not very pronounced, the motions being sometimes formed, sometimes liquid. In April he consulted Dr. Friedel, who sent him on to us. On examination I felt above the prostate a granulating mass on a hard base encircling the rectum, horseshoe fashion. I could reach the upper margin and the tumor was somewhat movable. You see, then, that in both these cases the first symptoms were bleeding and frequent calls, but without well marked constipation, at any rate to begin with. In both instances the cancer was horseshoe in shape, not completely encircling the gut.



You will remember my calling your attention to a woman, æt. 48, in the Salle Richet, who was admitted on April 18th for a very offensive reddish vaginal discharge. Vaginal examination revealed the fact that behind the left labium minus there was a pedunculated sanious tumor the size of a walnut lying on an indurated base. On rectal examination, two or three inches from the anus, I could feel a sort of indurated cylinder, split on the anterior wall where the mucous membrane seemed healthy. It was movable.

On questioning the patient, she said that in April, 1913, i.e., a year ago, she began to have frequent calls to stool, but only expelled flatus or mucus, or at most a little liquid blood-stained matter. This gradually got worse, till October, 1913, when she began to have pain in the anus independently of defæcation; she also lost weight, and on admission she was decidedly emaciated and cachectic, so much so that I could not entertain any idea of a radical operation.

The symptoms in the two next cases differ from the preceding. In one, a woman, æt. 54 years, colotomy had been formed by Schwartz a year before. Her first symptoms dated back to March, 1911, consisting of frequent calls to stool, usually with the expulsion of blood-stained mucus. These symptoms persisted for eighteen months, during which period she consulted several practitioners. Constipation was well marked. Ultimately she went to the St. Antoine Hospital, where cancer of the rectum high up was diagnosed, and an artificial anus was made. The salient features in this case were frequent vain calls to stool with little or no bleeding.

The next case is that of a pale woman, æt. 65 years, upon whom I operated, resecting the recto-vaginal septum. Her principal symptom was early persistent pain. It was in March, 1913, that defæcation began to be painful, the pain persisting after the act and becoming worse when she made any sort of effort. She lost weight, and two months later she went to the Broca Hospital, but an attempt to examine her proved vain on account of the pain it caused, and she refused admission until February, 1914. I examined her under an anæsthetic, and took advantage of the opportunity to make an artificial anus. The whole rectum was cancerous and ulcerating.

The two most constant symptoms at the onset, then, are bleeding and frequent calls to stool. This early bleeding does not always occur in exactly the same way. Sometimes the motions are merely streaked with blood, while at others there is pretty free bleeding after defæcation. In this case the blood

may be red or, should it have sojourned in the rectum for a time, it may be more or less black. I cannot insist too strongly on the diagnostic importance of these early hæmorrhages. We meet with much the same thing, it is true, in piles, but in spite of this the occurrence of bleeding renders it incumbent on us to explore the rectum. The bleeding is doubly significant when accompanied by frequent desire to go to stool.

This latter symptom is common to stricture from any cause, and indeed in rectitis from any cause, but when associated with blood-stained oozing we must be suspicious

I give prominence to these two symptoms because practitioners are particularly apt to go wrong in reference thereto, the bleeding being ascribed to piles and the frequent desire to empty the bowel to enteritis. We next come to two other symptoms, *viz.*, constipation and pain. Constipation is pretty constant, but may be wanting or not very pronounced. Why is this? Let us consider the structure of the rectum. It is divided into three portions: a middle segment, about 4 inches long and from 4 to 6 inches in circumference, is the rectal ampulla; above this is a part about an inch in length and two or three in circumference; and a third part, the anal segment, an inch long, surrounded by the sphincter muscle, converting it into a potential cavity. Now cancer is by far more frequent in the central segment, to the extent of two-thirds of the cases, 20 per cent. are situated above it and only 10 per cent. in the anal segment.

While cancer of the large intestine has a marked tendency to become annular, cancer of the ampulla is usually in patches or as an incomplete ring leaving a band of healthy tissue. I am convinced that this is almost always the initial form.

Let us see how these anatomical data bear on the constipation. To begin with, at any rate, as the obstruction is incomplete, the resulting constipation does not differ essentially from ordinary constipation due to intestinal paresis, in a few instances we get diarrhœa, or what is described as diarrhœa, but when we come to enquire into this we find that it is really pseudo-diarrhœa (of glairy mucus) masking more or less refractory constipation.

The symptom pain is the most variable. As a rule patients only complain of some discomfort, of a feeling of weight in the fundament or of "unsatisfied defæcation." Sometimes, however, there is actual pain during defæcation, persisting for some time afterwards; in fact it may not subside altogether, even between the efforts at expulsion.

These symptoms gradually increase in severity as the case progresses, the bleeding becomes more copious, the constipation



more and more obstinate, the desire to defæcate more frequent and more imperative, and at the same time the pain increases, and the general health shows signs of deterioration, though it may be that the patient retains the appearance of health for a long time, so that too much importance must not be attached to cachexia in the diagnosis of rectal cancer.

In cancer of the rectum high up the symptomatology resembles that of sigmoid cancer, *viz.*, in addition to the passage of blood-stained mucus there is gradually increasing constipation and attacks of very characteristic colic, as in all cases of cancer of the large intestine.

Another variety is anal cancer, whether the cancer be limited to the anus or be ano-ampullar. Here the predominant symptom is pain, the cancerous ulceration giving rise to all the symptoms of anal fissure; spasm and pain during and after defæcation and the inguinal glands are involved.

In nine cases out of ten the introduction of the finger into the rectum suffices to establish the diagnosis. In cancer of the ampulla we find an indurated patch with an irregular raised outline or a projecting mass of indurated tissue surrounding an ulcer. In the annular form the indurated patch extends more or less circumferentially round the gut, and when the ring is complete it feels like cancer of the uterine cervix because, as the result of a certain degree of invagination, the cancerous ring plunges into the subjacent portion of the ampulla forming cul-de-sac round the tumor.

Cancer of the anal portion does not present any difficulty of diagnosis unless it happens to have given rise to inflammatory lesions when the mixture of neoplasm and inflammation may lead us to suspect a mycotic, a tuberculous or a syphilitic lesion.

In some exceptional cases of cancer of the rectum the diagnosis may present more or less difficulty, but in the immense majority the danger is not that we may mistake the significance of a tumor discovered on examination, but that we may overlook its existence owing to our not having made this indispensable examination. Therefore, whatever be the age of the subject, however healthy he may look, whenever he presents the symptoms described above never fail to institute a rectal examination. Omission to comply with this injunction entails the gravest consequences to the patient and great damage to the reputation of the defaulting practitioner. On our early diagnosis of these cases depends the future of the patient, because early operation is not infrequently followed by complete cure and in any case by marked prolongation of life.—*The Medical Press.*



## Editorials.

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### ONTARIO MEDICAL ASSOCIATION

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The programme for the Ontario Medical Association meeting in Peterborough is almost completed, and promises to be most interesting. The addresses will be given by eminent men from the United States, and the other papers will be from outstanding medical practitioners all over the province. The Medical Health Officers' Association is to meet in conjunction with the O.M.A., and a very large attendance is assured.

Peterborough has made every preparation to look after the comforts of the crowd. There are plenty of excellent hotels, and the drill hall will give ample accommodation for all meetings. The Committee on Papers and Business are now sending out notices to those who are taking part, and we hope next month to publish the provisional programme.

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### CANADIAN MEDICAL ASSOCIATION MEETING

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This meeting is to be held in Vancouver on July 6-7-8-9, and it is hoped that a large number will take advantage of the opportunity to visit the West.

As a further inducement the Panama Exposition is to be held in San Francisco this summer, and arrangements are being made for fares for our members, which will enable them to visit both places at a very reasonable cost.

The Vancouver Local Council, under the able Chairmanship of Dr. Brydon-Jack, has already put in a vast amount of work to insure a successful meeting. Already a number of eminent physicians and surgeons have promised to read papers or take part in one or other of the two symposia. These on "Chronic Arthritis" and "Chronic Infection of the Kidney" promise to be particularly interesting features of the meeting.

In the early future we hope to publish a provisional programme, but in the meantime our readers should make up their minds to attend this meeting as a thoroughly enjoyable time is promised. It would be a great help to the local committee if intending visitors would send their names early to the Secretary, Dr. Fred Brodie, 718 Granville St., Vancouver, B.C.

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### THE MEDICAL PROTECTIVE ASSOCIATION

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We are glad to note the continued prosperity of the Canadian Medical Protective Association. There are now 884 members, of which 488 are practitioners in Ontario. During the past year only one action has been actually disposed of by judgment, being an action against a doctor in Hamilton for alleged injury from vaccination. The action was dismissed without trial.

One action brought against a doctor in British Columbia has been pending for nearly two years, but has not been proceeded with. It seems likely that it will be abandoned. Seven or eight other cases have occurred in which actions against doctors have been threatened, but not proceeded with. Mr. Chrysler,

the General Counsel of the Association, expresses the opinion that the work of the association has been increasingly useful each year, and has practically put an end to the bringing of frivolous actions against doctors of the association for the purpose of extorting a settlement in order to avoid publicity.

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### TYPHOID FEVER IN HULL

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There has for years been some doubt as to the health conditions of Hull. Some people in Ottawa City frequently and openly make statements to the effect that inhabitants of Hull drink raw Ottawa River water without any danger to their health. Such statements were made by members of the Ottawa City Council to the Ontario Board of Health a few months ago.

We learn from the *Ottawa Free Press* that there were 200 cases of typhoid fever in Hull during the months of November and December last. Hull is, of course, on the Quebec side of the Ottawa River and therefore comes under the jurisdiction of the Quebec Provincial Board of Health. The *Free Press* states that the Quebec Board first learned of the prevalence of typhoid through the lay press. The Medical Officer of Health in Hull had apparently no official intimation respecting the disease, and did not give any notification to the Quebec Board. It is stated that he was not informed about cases of typhoid by the local doctors.

We are glad to know that the Provincial Board is now making careful investigations. It is hoped by many that the municipalities of Ottawa and Hull will unite in efforts to get a thoroughly satisfactory water supply.



### CEREBRO-SPINAL MENINGITIS AND THE CANADIAN TROOPS

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There was a report that some of the Canadian troops suffered from spinal meningitis in Valcartier. The first death occurred at Quebec and the second at Plymouth. On the 13th of January we were told by cable that 29 cases of spinal meningitis with 25 deaths were reported by the Canadian Medical Officer. On the 1st of January came the sad news that Capt. Geo. L. Ingles, Chaplain of the Queen's Own Rifles, died December 31st at Netheravon Hospital. Capt. Ingles was Curate at St. George's Church, Toronto, and was dearly beloved by his relatives and intimate friends.

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### THE AMERICAN VOLUNTEER AMBULANCE CORPS

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This corps was organized by Mr. Richard Norton, and is now in active operation close to the allied forces in France. The idea was suggested to him when early in the war he saw at the American Hospital at Neuilly scores of cases of French and British wounded whose lives were lost, or who suffered materially through long delay in their removal from the field of battle.

He at once returned to London, and within three weeks was joined by a number of his countrymen possessing motors who offered them as ambulances and volunteered themselves to act as chauffeurs, and a corps with 15 ambulances was soon in existence, and its services were gladly accepted. Its function is to gather the wounded and those disabled by illness from the field hospitals and convey them to base hospitals.

Mr. Henry James, according to the *B. M. J.*, has described its organization and its work in a letter to the editor of an American journal. In the letter he pays a warm tribute to the admirable spirit of devotion which animates the members of the corps, and he finds "a positive added beauty in the fact that the unpaid chauffeur, the wise amateur driver and ready lifter, helper, and consoler is apt to be a university man and acquainted with other pursuits."

He says the work is by no means free from danger for "the Germans are noted as taking the view that the insignia of the Red Cross with the implication of the precarious freight it carries are in all circumstances a good mark for their shots, the view characteristic of their belligerent system at large."

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### LOOTING BY THE GERMANS

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Flaneur of the *Toronto Mail and Empire* publishes an interesting communication by Mr. Labouchere of the *London Daily News* during the Franco-German War in 1870. From this we extract as follows: "They (the Germans) are a singular mixture of bravery and meanness. They are courageous without one spark of heroism. After fighting all day for Fatherland they will rifle the corpses of their fallen foes of every article they can lay their hands on, and will return to their camp equally happy because they have won a great victory for Fatherland, and stolen a watch from one of the enemies of Fatherland. They have got into such a habit of appropriating other people's property, that I confess I tremble when one of them fixes his cold glassy eye upon me. I see that

he is meditating some new philosophical doctrine which, some way or other, will transfer what is in my pocket into his. His mind, however, fortunately works but slowly, and I am far away from him before he has elaborated to his own satisfaction a system of confiscation applicable to me."

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### BELGIUM

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"Of all the Gallic tribes the Belgae are the bravest." This was Caesar's opinion expressed a long time ago. Recent occurrences prove that the Belgians have not changed. We find in connection with the war in Belgium that the study of the German character is becoming increasingly interesting. Much has been said of the wanton destruction of Louvain and its old university. It was supposed that the library was burned at the same time. It is recently stated by Henri Bergson, the distinguished French philosopher, that he has reason to believe that it was pillaged before the building was burned.

Since then Ossip Lourie, the well known French journalist, tells the following story: "In the month of August, 1913, I met in Switzerland two Germans, one of them a Professor of Philosophy, the other of Linguistics. The latter constantly spoke to me of the new Royal Library of Berlin, which he said was capable of containing 5,000,000 volumes. To my remark that it would take a long time to fill it, my interlocutor replied very seriously, 'This would be very easy after the war.' The *British Medical Journal* in commenting says, the meaning of this utterance is now too clear; the Germans say they make



war to spread their 'kultur' among those who live in darkness. It is remarkable that as a means to this end they should steal the books of the uncultured."

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### THE BELGIAN PHYSICIANS

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In our last issue we referred to the trials of the Belgian physicians, and to the very kindly acts of friends in the United States who are taking steps to render them some assistance. *American Medicine*, so far as we know, was the first to suggest this course.

A very extensive movement in the same direction has taken place in Great Britain. A provisional committee was formed early in November to assist Belgian doctors and pharmacists, both those remaining in Belgium and those who are refugees in England.

Additional committees were formed in various parts of England, Ireland, Scotland and Wales. At a meeting held November 24th, a large committee was appointed with Sir Rickman Godlee as Chairman.

The committee has had weekly meetings since that time and large amounts have been subscribed, the individual subscriptions ranging from 10 shillings up to 100 guineas.

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### METHODS ADOPTED

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The committees of Great Britain have adopted a double programme:

1. To distribute what they can at the present moment, and
2. To collect funds for the assistance of Belgian doctors and pharmacists in the future.

I. As a tentative measure 50 packages of drugs and dressings were under order for despatch to Belgium in the last week of November. It was thought this would test the precautions which are being taken to insure the proper distribution of the goods.

II. No definite steps could be taken then for the rehabilitation of the medical and pharmaceutical professions in Belgium. A considerable sum of money will be required to replace ruined laboratories and pharmacies and to re-establish the ordinary course of medical administration, but nothing can be done in that direction at present. The committee has communicated with the United States, other neutral countries and also the allied nations, with the hope of setting up an international movement to reinstate the two professions. The committee since that time has been endeavoring to carry out the first part of the programme, that is, to distribute what help it can at present.

If the experimental plan of sending consignments to Belgium proves successful, it is expected that such consignments will be made regularly in accordance with the amount of money forthcoming; 2,000 such packages were arranged for, each package cost five pounds, the price being cut down to this figure by the willingness of Messrs. Burroughs, Wellcome and Company to forego all profit.

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## INSTRUMENTS

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The *British Medical Journal* has made an appeal for surgical instruments for the Belgian doctors. The Master of the Apothecaries' Society is taking a special interest in this matter. He says there is a

very urgent need for instruments of all sorts, and a large number especially of surgeons and obstetricians have promised to contribute. One list alone contains 40 contributors. The committee asks especially for midwifery instruments, tooth forceps, scalpels, scissors, forceps of all descriptions, etc.

Since the above was written we have learned that the committee in Great Britain will be glad to receive all sorts of surgical dressings, bandages, medical and surgical appliances, such as clinical thermometers, stethoscopes, ordinary needles, hypodermic needles, suturing materials, etc. We understand the pharmacists contemplate sending such materials as absorbent cotton, lint, etc., and it is probable that the two bodies will work together in making arrangements to ship all the materials and instruments to the London Committee which will look after the distribution of the goods.

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### CANADA'S SHARE IN THE WORK

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The chairman of the British committee has written to this country asking Canadians to assist. Under the circumstances it seems fitting to take energetic action.

At a meeting of the provisional committee held in the Academy of Medicine, Toronto, January 8th, the following committee was appointed to take charge of the work.

*Executive Committee.*—Chairman, Herbert A. Bruce; Hon. R. A. Pyne, Minister of Education; R. E. McKechnie, President Canadian Medical Association; James McArthur, President College Physicians and Surgeons, Ontario; Col. Sterling Ryerson, Presi-



dent Canadian Red Cross Society; H. B. Anderson, President Academy of Medicine, Toronto; G. E. Gibbard, Editor *Pharmaceutical Journal*; Adam H. Wright, Chairman Provincial Board of Health; S. M. Hay; W. H. B. Aikins; W. H. Harris; Clarence L. Starr; D. J. Gibb Wishart, President Ontario Medical Association, Treasurer, 47 Grosvenor St., Toronto; Walter McKeown, Secretary, 7 College St., Toronto.

*General Committee.*—H. A. McCallum, Dean Western University; C. K. Clarke, Dean Toronto University; J. C. Connell, Dean Queen's University; H. S. Birkett, Dean McGill University; H. H. Chown, Dean Manitoba University; A. W. H. Lindsay, Dean Dalhousie University; M. le Docteur E. Persillier-Lachapelle, Dean Laval University; D. G. Revelle, Alberta University, South Edmonton, Alta., President Ontario Medical Council, President Quebec Medical Council, President Manitoba Medical Council, President Sask. Medical Council, President Alberta Medical Council, President British Columbia Medical Council, President New Brunswick Medical Council, President Nova Scotia Medical Council, President P. E. I. Medical Council; E. Nesbitt, Winnipeg, President Canadian Pharmaceutical Association; J. H. H. Jury, Bowmanville, President Ontario College Pharmacy; J. E. Tremble, Montreal, President Quebec Pharmaceutical Association; G. A. Burbidge, President N. S. (Halifax); Robt. Martin, Regina, President Sask. Pharmaceutical Association; Geo. H. Graydon, Edmonton, President Alberta Pharmaceutical Association; Jas. E. Emery, Vancouver, President B. C. Pharmaceutical Association; E. E. King, *Canadian Practitioner*; Jno. Ferguson,

*Canada Lancet*; W. A. Young, *Canadian Journal Medicine and Surgery*; Geo. Elliott, *Dominion Medical Monthly*; Andrew McPhail, *Journal Canadian Medical Association*; Duncan Anderson, *Public Health Journal*.

We are very glad to announce that much excellent work has been done.

We learn from the *British Medical Journal* that in Christmas week there were about 140 Belgian doctors in England, the majority of whom are in very straitened circumstances.

The Pharmaceutical Society of Great Britain has done a great deal to help Belgian pharmacists, who are refugees in England. We are very glad to learn that the pharmacists of Canada are taking steps to assist their confreres in England and Belgium.

The Treasurer desires to acknowledge the receipt of the following subscriptions for the relief of the Belgian medical and pharmaceutical professions.

Dr. H. A. Bruce, \$50; Dr. D. J. Gibb Wishart, \$50; Mr. P. C. Larkin, \$50; Dr. R. A. Reeve, \$25; Dr. K. McIlwraith, \$25; Dr. King Smith, \$10; Dr. Geo. Porter, \$5; Dr. Powell, \$10; Dr. C. A. Warren, \$5; Dr. W. H. Harris, \$25; Dr. R. C. Griffith, \$10; Dr. E. R. Frankish, \$5; Dr. E. R. Hooper, \$5; Dr. J. G. Caven, \$5; Dr. T. A. Davies, \$5; Dr. W. H. B. Aikins, \$25; Dr. Mortimer Lyon, \$5; Dr. E. A. P. Hardy, \$5; Dr. A. O. Hastings, \$15; Dr. G. P. Sylvester, \$5; Dr. Gordon Rice, \$5; Dr. Allan Baines, \$10; Dr. A. J. Johnston, \$5; Dr. B. E. McKenzie, \$10; Dr. C. J. Currie, \$5; Dr. C. E. Treble, \$10; Dr. C. S. Hawkins, \$5; Dr. J. H. McConnell, \$15; Dr. F. A. Cleland, \$10; Dr. A. T. McNamara, \$5; Dr. W. J. Defries, \$5; Dr. G. H. Gardiner, \$5; Dr. C. W. Clendenan, \$5; Dr. S. Moore, \$5; Dr. J. R. Serson, \$5; Dr. W. A. Burr, \$1; Dr. J. W. Wigham, \$1; Dr. H. R. Holme, \$5; Dr. J. M. Cotton, \$25; Dr. W. A. Cerswell, \$5; Dr. H. J. Hamilton, \$25; Dr. R. T. Noble, \$15; Mrs. Mabel B. Irish, \$25; Dr. R. A. Thomas, \$10; Dr. W. A. Young, \$100 in supplies; Hartz and Co., \$50 in surgical dressings; Dr. Adam Wright, \$30, instruments; A Friend (Ottawa), \$25; Dr. A. Crichton, \$1.

### NEWS ITEMS

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Dr. J. E. Hett was elected mayor of the City of Berlin by a majority of 748.

At a meeting of the Western Hospital Sewing Club January 5th, Dr. Helen MacMurchy delivered an address on "Germans in Peace and in War."

A meeting of the Sir William Osler Chapter, I. O. D. E., was held January 4th. The regent of the Chapter, Dr. Caroline Brown, delivered an address.

City Clerk Littlejohn issued a summary of the vital statistics in Toronto for the year 1914. One very noteworthy fact mentioned was that the deaths from contagious diseases were much below those of former years.

An interesting story comes from Paris: A mechanic at certain motor works near Paris was caught in the machinery and was bleeding to death. When the message was telephoned into Paris, a doctor seized his instruments, took the observation seat on a military biplane, and reached the motor works, eight miles distant, in five minutes. He at once stopped the bleeding and saved the man's life.

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### The Feeble-Minded

The annual meeting of the Social Service Department of The Toronto General Hospital was held at the Hospital, January 7th. The Chairman, Lieut.-Governor Hendrie, congratulated the Association on the excellent work which had been done since its inception in 1911. He also referred to the urgent need of a home for the feeble-minded. Dr. C. K. Clark outlined the work of the Psychiatric Clinic, which was established last April. This clinic is in charge of Drs. Clark, Withrow and Hincks, and they have to deliver a report on the mental condition of children who have appeared in the Juvenile Court and whose sanity is questioned. In connection with this work eleven children were placed in hospitals for the feeble-minded, eight in hospitals for the insane, and ten in other institutions.



### Health of the Troops at the Exhibition Grounds

Lieut.-Col. (Dr.) J. T. Fotheringham issued a report respecting the condition of the troops on the Exhibition Grounds during a period from November 11th to January 8th. He says that the health of the men has been unusually good. There was an average of only five daily admissions to the hospital, while for an infantry brigade of the same size the average is fifteen daily admissions, even in the absence of fighting or epidemic of disease.

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### American College of Surgeons

The third convocation of the American College of Surgeons was held in Washington, November 16th, 1914. The President, Dr. Finney, announced that subscriptions to the proposed endowment fund of one million dollars now amounted to a quarter of a million. He predicted that the full sum would be secured before the next annual meeting. There are now 2,700 Fellows, and it is expected that in the near future there will be 3,000. It is estimated that there will be one Fellow to each 36,000 inhabitants of the United States and Canada.

The City of Washington has been selected as the home of the College.

The Canadian members of the Board of Regents are Dr. Geo. E. Armstrong, of Montreal, Dr. Herbert Bruce, of Toronto, and Dr. Robert A. McKechnie, of Vancouver.

## Personals

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Dr. J. F. O'Connor was elected reeve of Gananoque by acclamation.

Dr. Caroline Brown was elected a member of the Board of Education in Toronto.

Dr. Hugh A. Stevenson was elected mayor of the City of London by a majority of 642.

Surgeon Major-General Fiset, a former Liberal Member of Parliament and a Senator in 1887, was made C.M.G. on New Year's Day.

Dr. G. R. McDonagh wishes to announce that during his absence this winter his office will remain open and his practice will be attended to by Dr. Edmund Boyd.

Dr. E. Roger Wells, after five years of general practice, did post graduate work in New York City for a year and a half. He has commenced practice at 82 College Street, Toronto, confining his work to the treatment of diseases of the eye, ear, nose and throat.

Dr. C. Stuart Wright has discontinued his connection with the Toronto Orthopaedic Hospital, and has removed to 99 Bloor Street West, where he will devote his attention as formerly to orthopaedic surgery. He has also taken charge of the Departments of Orthopaedic Surgery and Radiography in the Toronto Western Hospital.

Dr. G. Sterling Ryerson, who was president of the United Empire Loyalists for several years, declined re-election at the annual meeting held January 14, owing to the amount of extra work he has now in connection with his position of president of the Canadian Red Cross Society.

Colonel Macqueen, the newly-elected president, read an address to Colonel Ryerson, expressing the deep regret of all. He also said that his valuable services were very highly appreciated. He then, on behalf of the members, presented him with a beautiful gold badge.

## Obituary

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### BRADFORD PATTERSON, M.D.

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Dr. Bradford Patterson, of Barrie, Ont., died November 6th, aged 94.

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### H. M. SHEPHARD, M.D.

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Dr. Shephard, who commenced practice in Ingersoll last April, died October 20th, aged 27.

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### JAMES G. ROBERTSON, M.D.

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Dr. Robertson died at the Winnipeg General Hospital November 3rd, aged 29. He was born in Brussels, Ont., and went to Winnipeg about eight years ago. He graduated from the Manitoba University in 1911.

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### GEORGE E. MILLICHAMP, M.B.

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Although it was understood that Dr. G. E. Millichamp, of Toronto, was in poor health for more than a year, the announcement of his death on January 7th caused considerable surprise. He was forty-three years of age, born in Toronto, and a son of Ex-Alderman Millichamp, one of the best known men in Toronto. He received his preliminary education at Jarvis Collegiate and his medical education in the University of Toronto, graduating M.B. in 1895. His widow, a daughter of the late Mr. John Acres, a well known barrister of Toronto, and two children survive. He had a fairly large medical practice, being much liked by his patients, and was chief medical examiner of the Union Life Assurance Company. The failure of that company, and the circumstances connected therewith, were a source of great anxiety and grief to Dr. Millichamp.



## Book Reviews

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*The Pocket Formulary for the Treatment of Disease in Children.* By LUDWIG FREYBERGER, J.P., M.D., Vienna, C.R.C.P. London, M.R.C.S., England; Barrister-at-Law; Toxicologist and Pathologist. Fourth revised and enlarged edition. Adapted to the British Pharmacopœia. With an appendix on poisons, their symptoms and treatment. New York: Rebman Company, Herald Square Building, 141 West 36th Street.

This small volume contains a great deal of valuable and useful information. Prescribing for children is notoriously difficult, with a result that routine is relied upon too much. With the aid of such a convenient desk-book as this, one will be able to prescribe with more exactness, and, what is very important, in a much more palatable form than one has perhaps been accustomed to do in the past.

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*A Text-Book of Practical Therapeutics*, with especial reference to the application of remedial measures to disease and their employment upon a rational basis. By H. A. HARE, M.D., B.Sc. Fifteenth edition; enlarged, thoroughly revised, and largely re-written. Illustrated with 144 engravings and 7 plates. Lea & Febiger, Philadelphia and New York, 1914.

That Hare's Text-Book of Therapeutics is recognized as a standard work on the subject is evidenced by the fact of the appearance of a fifteenth edition. As in the previous editions, the book is divided into four parts—Part I. dealing with the subject in general; Part II., with the action of drugs; Part III., with other therapeutic procedures, and Part IV., with the treatment of particular diseases.

The book has been revised and in a large measure re-written, in accordance with our recent knowledge—such as the articles on salvarsan, digitalis, tuberculin, etc. There is throughout a happy combination of the scientific with the clinical that must appeal to the student and practising physician.

We have no hesitancy in predicting as hearty a reception to this new edition as has been accorded to previous appearances of this well-known text-book.

*Progressive Medicine.* A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics, Materia Medica and Diagnosis in the Jefferson Medical College, and LEIGHTON F. APPLEMAN, M.D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia. Volume IV, December, 1914. Lea & Febiger.

The contents of this volume are: Diseases of the digestive tract and allied organs, the liver, pancreas and peritoneum; diseases of the kidney; genito-urinary diseases; surgery of the extremities, fractures, dislocations and tumors; with a practical therapeutic referendum. The subjects discussed are thus about equally divided between medicine and surgery. Some of the articles contributed are of greater merit than the usual high standard of *Progressive Medicine* demands, and the whole work is, as always, a great achievement of editors and publishers. This quarterly is the physician's *vade mecum* and is unsurpassed in the world.

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*International Clinics.* A quarterly of illustrated clinical lectures and especially prepared original articles on, Treatment, Medicine, Surgery, Neurology, Pædiatrics, Obstetrics, Gynecology, Orthopædies, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and other topics of interest to students and practitioners. By leading members of the medical profession throughout the world. Edited by HENRY W. CATTELL, A.M., M.D., Philadelphia. Volume III. Twenty-fourth Series, 1914. Philadelphia and London: J. B. Lippincott Company.

This number contains many interesting articles on a great variety of subjects, so that everyone may find something to attract his attention. Perhaps all may not agree with the editor as to the wisdom of utilizing over one hundred pages in a "write-up" of a celebrated clinic, but there are still many valuable subjects dealt with. One great value of the *International Clinics* is the essay on things not immediately connected with the scientific side of medicine. In this issue we have the discussion of the physician and the child, and also an article on "Big Fees" which we reproduce in this issue.

*Progressive Medicine.* A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics, Materia Medica, and Diagnosis in the Jefferson Medical College, Philadelphia; Member of the Association of American Physicians. Assisted by LEIGHTON F. APPLEMAN, M.D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia; Instructor in Ophthalmology, Philadelphia Polyclinic Hospital and College for Graduates in Medicine. Volume III. September, 1914. Philadelphia and New York: Lea and Febiger. 1914.

Always a welcome visitor, *Progressive Medicine* comes again to our desk, as fresh and as interesting as ever. The articles in this number are better than the average, Dr. Ewart's being particularly good. Dermatology and syphilis for the past year are considered by Gottheil, obstetrics by Davis, and nervous diseases by Spiller.

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We would call the attention of our readers to a new feature in connection with the Proceedings of the Royal Society of Medicine. This is the "New Books" supplement, to be found at the end of the volume. It is proposed to draw attention each month to the more important new medical works. This is not to be done in a critical manner, but an analysis of the works will be made in order that readers may understand the intent of the authors, and thus be guided in their purchases.

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*Manual of Obstetrics.* By EDWARD P. DAVIS, A.M., M.D., Professor of Obstetrics in the Jefferson Medical College, Philadelphia. 12mo. of 463 pages, 171 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$2.25 net. Sole Canadian Agents, J. F. Hartz Company.

Dr. E. J. Davis, of Philadelphia, is a prolific writer on obstetrics and an excellent teacher on that subject. In this small book he gives a concise account of modern obstetrics, nothing of importance, however, is omitted. He is especially clear in describing the art of obstetrics, having always in view the scientific basis on which it should be founded. The book will be found useful for the student and also for the general practitioner who has neither the time nor the inclination to wade through a large textbook of midwifery.



*The Clinics of John B. Murphy* at Mercy Hospital, Chicago. Volume III. Numbers 4 and 5, August and October, 1914. Published bi-monthly by W. B. Saunders Company, Philadelphia and London. Octavo of 254 pages, 65 illustrations, Price per year: Paper, \$8.00; cloth, \$12.00. Sole Canadian Agents, The J. F. Hartz Co., Ltd., Toronto.

The two latest volumes of Murphy's Clinics keep up the high standard set in previous numbers. The range of subjects carried is a very wide one, chiefly of course along surgical lines, but unequalled as a course in diagnosis of the cases one would meet with in general practice. Many of the acute abdominal conditions are discussed, and the differential diagnosis thoroughly set forth. There are also a good many "clinics" on bone and joint diseases.

To read these articles, written in such a delightful way, is one of the best ways of which we know to combine pleasure with much profit.

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*The Backward Baby.* A Treatise on Idiocy and the Allied Mental Deficiencies in Infancy and Early Childhood. By HERMAN B. SHEFFIELD, M.D., New York. Fellow of the New York Academy of Medicine and the American Medical Association; author of "Modern Diagnosis and Treatment of Diseases of Children, Pædiatric Memoranda and the Baby's Record and Health"; awarded the Alvarenga Prize of the College of Physicians of Philadelphia, July 14, 1914. With twenty-two original illustrations in the text. New York: Rebman Company.

The early recognition of mental deficiencies is most important, both for the individual child and society in general. The author of this monograph has presented the subject as it appears in infancy, for, as he says, the majority of books on the subject devote themselves more to older children and adults. Dr. Sheffield is assuredly a keen observer, and his presentation of the subject is most instructive. He believes that much improvement is to be expected by proper treatment if the trouble is recognized early. The monograph is a most excellent one, and it is easily understood why it should have been awarded the Alvarenga prize in 1914.

## Selections.

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### **Big Fees.** By M. V. Ball, M.D.

In these days of muckraking it may be unwise to enter a plea for the man of wealth, and it is only in order to point out the evil in our own profession and, if possible, aid in abolishing it that I take such a stand.

Our profession has ever been ridiculed for treating a man according to his pocketbook. What is a simple bellyache in a poor man is denoted as appendicitis in rich, and treated accordingly. Is it not possible for our profession to put itself on the basis of charging according to the services rendered and not in proportion to the amount the traffic will bear? The life of a rich man is not one bit more important to society than the life of a poor man. A poor man is worth as much to society as, if not more than, many of the idle rich. To charge a rich man \$3,000 for an operation that is usually performed for \$100 is, in my humble opinion, a shameful robbery and at the bottom of more quackery than all the other irregularities in our profession. But, you will say, what about the very poor who are treated for nothing? Let us once for all quit talking about this charity, charity that we brag so much about and do so little of. If we were to say to the rich man, "We tax you \$2,900 to take care of those who cannot afford to pay, and render him a proper accounting for his money," it would be honest. The rich man should receive the credit for his bounty and not the doctor. Some one will say that the rich man demands more time. If you wish to cater to the whims of the rich and give him unnecessary services for which he is willing to pay, there is no cause for complaint, but this is not the basis on which fees are rendered. If the treatment of the poor were put on a proper basis there would be no such thing as charity work.

The state cares for the insane and pays physicians for such care. If physicians are willing to do indifferent work for nothing as an excuse for robbing the rich, communities will be content to let them do it so long as they are ignorant of the true conditions. If the proper medical attention were given to every one needing it, just as education is provided, then the state would be compelled, through public or private agencies, to raise

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are usually the direct result of an over-stimulated nervous system. The sufferers of either transitory or permanent insomnia, present similar pathological conditions.

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sufficient money for such purposes and give the physician proper compensation, and the rich would have to bear their proportion.

To demand a large fee because of special ability is an entirely different matter. There are eminent men in our profession whose services are worth more to anyone, whether he be rich or poor. Such men should command proper rewards in order to save them for the work for which they are best fitted. Such men should be properly subsidized by the State and their special talents made possible for the many. Something of this sort has already been done in research work with men like Flexner in our own country, and Koch and Pasteur in other lands. We would not expect a Mayo or a Halstead to bother about a carbuncle when they might be employed continuously with the work that has made them famous. If the ability is of an extraordinary nature it should be socialized. I believe that this catering to the rich, while by no means a new evil in our profession, has reached a serious stage. We read of an accoucheur receiving a fortune for a week's attendance upon the wife of a millionaire and of surgeons demanding or obtaining a mercantile report before undertaking an operation and regulating their fees accordingly. We should all be paid according to the services we render and our ability, and paid for all the work we do. This would at once put an end to the political jobbery that many physicians are engaged in to obtain appropriations for their pet institutions.

It would put an end to the abuse of the poor in the free dispensaries and clinics; to maltreatment at the hands of careless physicians who fail to take their appointments seriously because the services are gratuitous. It would likewise stop the abuse of the privileges on the part of those not requiring them—the so-called dispensary evil. It would prevent the robbing of Peter to pay Paul.

If there are other reasons than those I have mentioned why a man of wealth should pay more for the same services than the poor man, I hope that some other member of the profession will enlighten me.—*International Clinics*.

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### German Commercial Warfare and Science

A marked characteristic of most of our great British scientists is a happy blend of practical good sense with the more technical part of their work. That quality was conspicuously shown in a recent address given by Sir William Ramsay, F.R.S.,

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to the Institute of Industry and Commerce. He pointed out that Germany had looked upon commerce as a war, to be pursued by brutal and unscrupulous methods rather than as an arrangement for mutual benefit. The war in which we are now engaged was, in fact, a war for the liberation of nations from unscrupulous and illegitimate commercial methods on the part of Germany—as well as for deliverance from the brutality of militarism and “Kultur.” “It is necessary to go further,” said Sir William. “Just as the German State has shown itself to be no respecter of treaties, just as the leaders of the German army have revealed themselves as breakers of every humane law; treacherous and deceitful, so long as they can gain their ends: so it is foolish not to be warned that the German nation, as a whole, is unworthy of trust; that commercial agreements are regarded by members of that union as binding only so long as some advantage is to be gained by keeping to them, and that dishonesty is excusable if only it appears to lead to German prosperity.” This vigorous exposure comes with especial force from Sir William Ramsay, who, as Chairman of the Educational and Research Committee of the Institute, has already formed a Central Outside Committee, with a view of forming a curriculum for industrial scientific education. For this purpose a number of leading scientific and educational authorities have been called together. The main immediate points of view of the Institute are the standardization of education, and the drafting of a curriculum of the above-mentioned kind. The movement is significant. It shows that the British mind is beginning to appreciate more accurately the value of science and of scientific training as an educational method. Germany has long since grasped the lesson that commercial progress is largely commensurate with national scientific standards. She has accordingly, as a State, spent large sums in the endowment of scientific research. Nor have the domineering selfishness of the German nation and the unscrupulous brutality of their commercial methods prevented them from reaping an extensive harvest in real science. In other words, she knows how to forge and to use sound weapons, as well as those that are unsound and treacherous. The tendency of the patient German mind is to acquire an ever-increasing mass of details, with the inevitable result of a tendency to invest isolated observations with the dignity of established generalizations. In the present war many of their preconceived notions as to military strategy have crumbled to dust when put to the test of actual practice. In



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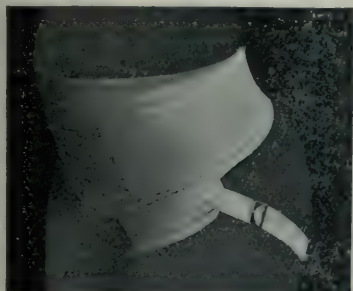
a word, there appears to be some vital defect in the application of the vast range and brilliance of Germany's organized scientific activities. Not long ago the nature of this defect was hinted at in a leading article in our columns, dealing with the attempted Germanization of the London University. The keynote of our comments lay in the protest advanced against the too rigid adoption of German educational methods to the exclusion of the practical handling that has always been characteristic of our British practice, especially as regards the practical application and the practical direction of scientific work. A correspondent, well known in the London medical world, furnished us recently with a good illustration of German enterprise in the world-competition. It appears that a Japanese student applied to him with a view of coming under his tuition in certain advanced research work. A moderate fee was named and the matter remained in abeyance for some time. Then a letter came from the student saying he had made up his mind to wait until the war was over, and then to go to Germany, where he could get all he wanted, free, gratis, and for nothing. The letter, with its quaint phrasing, may be interesting to our readers if reproduced *verbatim*:—"Sir," it ran, "since I have seen you, I considered over again, and I came to the conclusion, that I can not pay so much money for my research, because I was intended to research in Germany, where we had nothing to pay for our studying. It would be better, therefore, to go back for Japan to spare my money for researching in Germany after the war or in Japan. And it is not because I want not, but because I am compelled. To inform this I am very sorry and I repeat my thanks.—Yours . . . affectionate . . . Dr. X. Y. Z." Germany is a nation that does nothing without an object, and a useful lesson might be learnt by considering carefully the policy that provides free scientific facilities not only for her own students, but for those of other nations.—*The Medical Press*.

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## Miscellaneous.

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### A Method of Marking-Out after the Use of Tincture of Iodine

Leveque (*La Semaine Medicale*, May 6, p. 207). In a case presenting a small area of tenderness in the popliteal space in which deep suppuration was suspected the writer marked the point to be incised with nitrate of silver and allowed it to become black on exposure to light in the hope that it would remain visible after the skin was painted with tincture of iodine. On application of the iodine solution the mark instead of showing faintly as black upon brown became white from the formation of iodide of silver and was easily seen against the brown staining of the surrounding skin.—*Med Review*.

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### Prescription Writing

Notwithstanding the advances in sanitation, preventive medicine, balneology, and mechanotherapeutics, there is still need for an occasional prescription. Consequently some interest will be felt by physicians in a discussion, What Instruction Ought Medical Colleges to Give in Pharmacology and Therapeutics? published in the *Quarterly of the Federation of State Medical Boards of the United States*, 1, 4. The viewpoint of the pharmacist, presented by Dr. Bernard Fantus, Professor of Pharmacology and Therapeutics in the University of Illinois, concerns itself principally with the prescription, and presents an interesting tabulation of the results of the study of 10,000 prescriptions collected by 100 pharmacists. Of these prescriptions, thirty-six per cent. were written in poor English, eighteen per cent. in poor Latin, four per cent. were almost illegible, forty-six per cent. contained less than three ingredients, while eleven per cent. contained more than five, twenty-four per cent. contained proprietary preparations, two per cent. contained incompatible substances, and one per cent. showed errors or overdoses. The fact that only four per cent. were almost illegible is a refutation of a traditional joke. A most hopeful showing is made as regards incompatibility, though modern therapeutists would be inclined to balk at the eleven per cent containing more than five ingredients. But even if

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we include polypharmacy among the major faults, the record is not a bad one, not nearly so bad as some critics have led us to expect; in fact, surprisingly good in view of the lack of practice by the medical student in writing prescriptions. Time is valuable in a hospital, but it is a pity that the ready made mixtures in general use interfere with the writing of a special prescription for each patient. Strictly speaking, scientific therapeutics demands individual mixtures. If it were possible for visiting physicians and internes to carry out such an ideal plan of prescribing, the profession would soon make an even better showing in prescription writing.—*N. Y. Medical Journal*.

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**Treatment of Tetanus by Baccelli's Method.** By Paul Sainton.

A series of twenty-two cases is reported (*Bulletin de l'Académie de Médecine*) in which Baccelli's method was applied, at first cautiously, later with greater freedom, the procedure ultimately carried out being as follows: Twice daily an injection of forty to fifty c.c. of a two per cent. phenol solution was given subcutaneously, in the vicinity of the wound whenever possible, otherwise in the thigh or abdomen. The patients thus each received 1.6 to two grams of phenol a day, and in two, the injections were continued for nearly a month. The only untoward effects noted were local erythema in two cases, and an accumulation of aseptic, serous and seropurulent fluid where numerous injections had been given in the thigh. No signs of general intoxication, such as dark colored urine, were ever noticed. Kept very quiet and in semi-darkness, the patients were also given, morning and evening, an enema containing six to eight grams of chloral hydrate, one or two yolks of egg, and 250 grams of milk. Six patients recovered from the tetanus, though two of these succumbed soon after to other conditions; two of the cases with permanent recovery had been of extreme gravity. That the administration of phenol is of value seemed clearly proved in at least one case, in which a relapse promptly took place when the phenol was temporarily discontinued, and improvement again followed when the drug was resumed. Elimination of the phenol was found to be very slow, and the drug is credited by the author with a distinct microbicidal action in tetanus. Stress is laid upon early treatment, and upon dysphagia without local cause and contraction of the wounded area as premonitory indications of the disease.—*N. Y. Medical Journal*.



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—*British Medical Journal*

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**Dyspnoea in Cardio Renal Disease.**

Certain types of both cardiac and renal disease are attended with disturbances in respiration which occasion unpleasant manifestations. Sometimes the conditions of the heart and kidneys are believed to contribute jointly to the difficulty that may arise. The occurrence of Cheyne-Stokes breathing in uræmia has been attributed to cardiac failure which is undoubtedly one of the common causes of such dyspnoea; but the labored breathing at times attending renal disease may be independent of the heart in its origin. There is urgent need to-day of a clearer understanding of the immediate physiologic and pathologic conditions which underlie dyspnoea, instead of the vague charges against the different organs which are more indirectly involved in the transaction.

The questions to be solved concern the nature or size of the stimulus to rapid respiration. The well-established view that the exciting stimulus to the respiratory centre is the carbon dioxide content of the blood has been broadened to refer to the hydrogen ion concentration of the circulating fluid. The variations in the carbon dioxide content of the blood, and consequently of the alveolar air, are but the result of the attempt on the part of the organism to keep the hydrogen ion concentration of the blood at a constant value. The carbon dioxide in the blood rises as the amount of non-volatile acid falls, and the carbon dioxide falls as the production of other acids rises. Any tendency to the production of an acidosis in the body is immediately compensated for by an increase in respiration and a washing out of carbon dioxide. It seems probable that the kidney is the fundamental regulator of the reaction of the blood, but the lungs, acting more quickly in response to sudden calls, serve, as has lately been remarked, as "the more delicate balance-wheel of the regulatory mechanism."

Hasselbalch has emphasized the fact that in addition to the acid stimulus, the excitability of the respiratory centre must be taken into account in any consideration of the factors that govern the chemical regulation of respiration. Even with an unchanged composition of the blood in respect to non-volatile acids and carbon dioxide, the threshold of excitation of the centre may be altered and change the respiratory function. According to Lindhard, the excitability of the respiratory centre varies inversely with the oxygen tension.

Blood, which directly bathes the respiratory centre, urine, which represents the outcome of the renal device for controlling

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the neutrality of the blood, and the alveolar air, by which the pulmonary regulatory device is judged, all need to be studied in any fundamental investigation of the dyspnœa encountered in cardiac and renal disease. A good beginning in this direction has been made at the Peter Bent Brigham Hospital in Boston by Dr. Francis W. Peabody. As he has pointed out, it is quite possible that different causes for the dyspnœa in various types of uncomplicated heart disease may be ascertained, and the study of large numbers of cases may lead to the recognition of definite groups of functional derangement.

In uncomplicated cases of chronic nephritis the mild acidosis which is a frequent accompaniment is taken care of by the kidneys as a rule. According to Peabody, it is only in uræmia and usually only in very advanced uræmia that non-volatile acids accumulate in the blood in an amount sufficient to cause depression of the tension of carbon dioxide in the alveolar air. In the terminal stage of uræmia there may be a high grade of acidosis. The development of acidosis is not the direct or sole cause of dyspnœa associated with cardio-renal disease. A high grade of acidosis may exist without causing a change in respiration which is evident on the ordinary clinical examination. In some cases of cardiac disease accompanied by dyspnœa there is evidence of a slight accumulation of non-volatile acids in the blood. In other cases there is no evidence of such an accumulation. The hydrogen ion concentration of the blood remains normal.

Peabody has shown groups of cases in which the degree of acidosis is not sufficient to account for the dyspnœa on the basis of an increase in the stimulus to respiration alone. He concludes that an important factor in the causation of dyspnœa in cardiac disease is an increase in the excitability of the respiratory centre. Such a change in excitability may well be caused by a lowering of the oxygen tension, and be dependent on an inadequate blood-flow. There may, of course, be developed some as yet unknown substance which affects the stimulus. Until the excitability of the respiratory centre under pathologic conditions has been experimentally studied, we may accept the hypothesis tentatively advanced involving the consequences of a poor circulation and possibly a partial oxygen want at the respiratory centre. In combined cardio-renal disease, the dyspnœa would thus be a circulatory feature, the renal condition playing only an accessory part.—*Edit. J.A.M.A.*

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## Original Communications

### SUBTENTORIAL TUMORS AND ABSCESES\*

CHAS. B. SHUTTLEWORTH, M.D., C.M., F.R.C.S., ENG.

Assistant Surgeon, Toronto General Hospital; Associate in  
Surgery, Toronto University.

The technical difficulties encountered by the surgeon in any attempt to expose, much less remove, tumors of the cerebellum, mainly on account of its anatomical relations, are especially great. Encompassed as it is by large venous sinuses, the peculiar plane of the tentorium cerebelli, and its confined position, far removed from the surface of the body and with a limited and difficult approach, one realizes at once that there are especial dangers met with in a radical subtentorial operation. There are distinct risks also attending manipulations upon the cerebellum in order to gain adequate exposure of tumors, due to traction, causing trauma on the medulla oblongata, which at times proves rapidly fatal. Owing to the relatively small space occupied by the cerebellum as compared with the hemispheres of the cerebrum, when the surface tension is relieved, the cerebellar tissues almost invariably protrude through the opening made in the skull and this takes place even under normal conditions. This state of affairs is all the more aggravated when a tumor is present. The situation is all the more embarrassing when the new growth is situated in the cerebello-pontine angle, for the cerebellum cannot be retracted to the same degree nor with the same ease as can the cerebral lobes.

Profuse and alarming hæmorrhage may also be met with, due to emissary veins which pierce the skull near the mastoid process or in the neighborhood of the occipital protuberance, sometimes necessitating the postponement of the second steps

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\* Read at the Surgical Section, Academy of Medicine, Dec. 16th, 1913.

of the operation to a later date. The occipital bone on account of its varying thickness does not lend itself well to any osteoplastic flap being made and is to be discountenanced.

The indications for operation in cases of suspected tumor do not differ materially from those in other parts of the brain. Once the diagnosis has been made, if operation is to be done at all, it should be done at once and not postponed in the hope that improvement may take place under treatment, or that localization may be made with mathematical accuracy. Kocher says there should be less delay in bringing to the surgeon a lesion of the brain, whether it be a neoplasm, tubercle, gumma or abscess. There is no more excuse to-day for delaying operations in case of tumors, because the neoplasm could not be exactly located, than there would be for declining to operate upon a case of intracranial hæmorrhage because one was unable to determine positively the seat of the clot.

In order that the very best results may be obtained, the surgeon and the physician must work hand in hand in this as well as in other fields. As exploratory operation is recognized as the surest, safest and most reliable diagnostic measure in abdominal lesions, such as tumor of the stomach, it should be considered of equal value and importance in tumor of the brain. Patients with cerebral tumors make very poor subjects for surgical intervention. The operation, is of itself one of considerable gravity, and the condition of the patient should be as good as to enable him to withstand its depressing defects. Therefore, no postponement of operation should be tolerated if good results are to be expected.

It is well known that cerebellar tumors are more difficult to localize than those of the cerebrum, and at times well nigh impossible. This, however, should not be an indication for delay, but rather for early exploration. When the diagnosis has been made with a reasonable degree of certainty, just so soon should operation be carried out, providing other measures have failed and the operation, *per se*, is not contra-indicated.

During the last month there have been two patients in the General Hospital who were suffering from cerebral tumors, who both died the day before that set for the operation of respiratory failure.

Operation as a palliative measure is indicated for the relief of symptoms when the tumor cannot be found or localized, or it may be inaccessible or of such a size as to make its re-



moval impracticable. This is justified in order to prolong life, to alleviate the severe and persistent headache, to stop fits or to save the sight. In general, to benefit the patient by reducing intracranial pressure, by a suitable decompression even though it is quite impossible to remove or even locate the tumor. The headache, vertigo and vomiting, so marked a feature in cerebellar tumor make the life of the patient pitiable, and these symptoms may be relieved for a considerable interval by relieving pressure. Of all the considerations enumerated above, for which palliative measures are indicated, there is none more urgent than optic neuritis, which steadily goes on to atrophy and blindness. This calamity may, with certainty, be averted, for a considerable time, at least, even up to a period of three years, by an efficient and early decompression operation.

Time will not permit me to enter into the details of the operative technique for the removal of subtentorial tumors, either intra or extra-cerebellar. The mortality has of late years, owing to improved technique, been lowered from seventy per cent. to twenty-eight per cent.

I would, however, briefly draw attention to the question of the advisability of relieving intracranial pressure by the tapping of the lateral ventricles or by Quincke's lumbar puncture. Puncture of the ventricles is done for two purposes: first, as a palliative measure to relieve intracranial pressure, and secondly, to relieve tension to render it possible to make a more thorough examination of deep-seated tumors, in the hope of removal at the time of operation. Experience has shown that it is a procedure of great gravity and of questionable propriety. Many cases have resulted disastrously from immediate collapse and in the majority of cases the patients have died immediately or soon afterwards.

Von Bergmann attributes the relief which follows the palliative operations for tumors of the brain, more to the loss of the cerebro-spinal fluid than the removal of large sections of the skull. He, therefore, recommends lumbar puncture in cases where the pressure symptoms are very marked. According to Oppenheim, lumbar puncture is indicated in a very limited number of cases, chiefly in those where the tumor is associated with internal hydrocephalus, and especially in those where the tumor encroaches on the posterior fossa and threatens life. However, there is particular danger in this procedure and many fatal cases have been reported. The cause of death is

usually attributed to the brain stem being suddenly forced down into the foramen magnum, like a cork in a bottle, with the consequent disturbance of the vital centres in the medulla.

Lumbar puncture supplies information as to the tension of the cerebro-spinal fluid and to its bacteriological and cytological characters. But there is abundant evidence of the increase of intracranial pressure as shown by the mental condition of the patient, the headache, optic neuritis, etc. On the other hand we may get valuable indications of the probable tuberculous or syphilitic character of the brain lesion from an examination of the cerebro-spinal fluid. But cannot the same evidence be obtained by using tuberculin, the Wassermann, or other tests? Looking at the question from the broadest point of view, it would appear that lumbar puncture, especially in cases of subtentorial tumors, where the pressure is usually very great, is fraught with considerable peril.

The frequency of subtentorial tumors, may be gathered from collected cases. Schuster, from an investigation of 1,000 cases, showed that cerebellar tumors are relatively more common than cerebral, the comparative size of the two regions being taken into account. Paton's tables show cerebellar and extra-cerebellar tumors together form rather more than twenty-five per cent. in 202 cases of brain tumor formation.

Gliomata, sarcomata and endotheliomata are the commonest types. Other forms are fibromata, tuberculomata, syphilomata, cysts and carcinomata.

Gliomata are generally primary and single, are ill-defined and seldom amenable to surgical operations.

Sarcomata grow from the meninges, periosteum of the cranial bones and from the sheaths of nerves and vessels. They are primary and then single or secondary and their multiple. Sarcomata are more or less encapsulated, tending in the first place to cause pressure only and then later invading surrounding regions. In the early stage of its development the tumor may be completely removed.

Endotheliomata grow from the meninges. They are hard in their early stages, definitely non-infiltrating and when accessible, removable.

Fibromata commonly originate in the cerebello-pontine angle, possessing a narrow stalk, often an atrophied nerve or vascular bundle, being very frequently attached to the eighth nerve, hence often designated acoustic tumors. They may be small or large, appearing as pink lobulated tumors growing

slowly and not invading the brain tissues. When accessible, are often readily removed.

Tuberculomata, commonly situated subtentorially, are often multiple and cannot be considered favorable tumors from a surgical standpoint, because usually accompanied by similar lesions in other parts of the body and commonly infiltrating the meninges.

Syphilomata are not so common as in the cerebrum, sometimes totally unaffected by anti-syphilitic remedies. They appear as hard, encapsulated tumors and if they can be reached are readily removed.

Cysts are of frequent occurrence, being (1) traumatic (for partially absorbed blood clot); (2) parasitic; (3) cystic degeneration of a sarcomatous, carcinomatous or gummatous mass, or (4) simple arachnoid cysts. Many of these cysts are amenable to surgical treatment.

Carcinomata are always secondary to cancer in other parts—particularly the breast. Are usually multiple and are quite unsuited to surgical procedures.

Subtentorial abscesses may be (1) multiple and generally pyæmic in origin, (2) acute traumatic abscess, usually from infected compound fractures of the skull, and (3) chronic abscess.

Chronic abscesses of the brain to which I will confine my remarks, in a large proportion of cases arise from middle ear suppuration and are about one-half as common as abscesses in the temporo-sphenoidal lobe; these abscesses are also due to the same cause.

Many of the symptoms common to cerebral abscess are intensified when the focus of suppuration is situated in the confined space below the tentorium cerebelli. Headache is exceptionally severe and usually occipital in type; optic neuritis may develop early and reach a high grade of intensity, vomiting is severe and exhausting, while other symptoms dependent upon the increased intra-cranial pressure—slowing of the pulse, alterations in respiratory rhythm—are correspondingly accentuated.

The more localizing symptoms are vertigo, when standing the patient tends to fall in some particular direction, most commonly to the side affected, although opinions differ on this point and may lead to error in diagnosis. Sometimes Dana's cerebellar fits are noticed—vertigo, roaring in head, relaxation of limbs and the patient falls unconscious. This symptom is said to be pathognomonic of an abscess (or tumor) in the cere-



bello-pontine angle. Cerebellar gait, disturbances of co-ordination, paresis or paralysis of the limbs of the ipso-lateral side and a conjugate deviation of the eyes to the opposite side, with nystagmus of a coarse type are also observed in well marked cases.

Treatment: Two courses are open for the operative treatment of otitic cerebellar abscesses: (1) To trephine directly over the antero-lateral aspect of the cerebellum (the usual site of the pus), and postponing the mastoid exploration to a later date (the two-stage operation), and (2) To carry out the radical mastoid operation, searching for the stalk of the abscess and draining the abscess into the now-united middle ear and antrum (the one-stage operation).

The former method (the two-stage operation), is advocated by many general surgeons, the latter is the one usually pursued by the aural surgeon.

The advantages claimed for the former method—the direct trephining method—are as follows:—

(1) The general condition of the patient is often so serious as to prohibit the more prolonged procedures essential to mastoid exploration.

(2) When an exploration is conducted through the infected middle ear, one unsuccessful attempt to find the abscess carries with it the dangers of meningeal or brain infection, which can be avoided if a separate incision is made in the healthy tissues over the lesion.

(3) The drainage through the trephine hole is much more efficient.

(4) Many general surgeons do not possess that intimate anatomical knowledge of the middle ear and its surroundings, which is necessary to carry out a complicated aural operation.

Each case must be judged on its own merits. Rawling advocates the two-stage operation, evacuating the abscess and draining with a tube, when the diagnosis of cerebellar abscess is reasonably certain and then followed by the mastoid operation as soon as the patient has recovered from the first procedure. When, however, considerable doubt exists as to the situation of the abscess, or the nature of the complication in general, it is then advisable to start by exploration of the mastoid and aural regions, further measures being adopted according to the conditions found at the time of the operation.

## Reports of Societies

### REPORT OF THE PROCEEDINGS OF THE ACADEMY OF MEDICINE

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February 2, 1915.

Dr. K. C. McIlwraith in speaking on the subject of hæmorrhage in the Pregnant Uterus, spoke of hæmorrhage arising from two conditions: (1) hæmorrhage from threatened abortion, and (2) hæmorrhage associated with ectopic gestation, and illustrated these by cases from practice. When fever is present there may be septic endometritis with parametritis, and it may be associated with ectopic. No case of uterine hæmorrhage in early stage of pregnancy should be treated without careful bimanual examination and if necessary under anæsthetic. The pains may be different in the two conditions of normal and ectopic pregnancy. He does not consider a case of abortion carefully and properly treated until the attendant has made a careful examination of the interior of the uterus with his finger.

Placenta prævia and hydatidiform mole are sources of bleeding in early stages. The latter when diagnosed. In the later stages of pregnancy the sources of bleeding are placenta prævia, and accidental and concealed hæmorrhage. In threatened abortion, if membranes are not ruptured, use tight binder and packing of vagina. If membranes are ruptured use pituitrine to empty uterus. In placenta prævia if it will admit two fingers it is advisable to turn if the child is easily movable. If not movable bags are to be used to dilate. If it will not admit two fingers it is preferable to do an abdominal Cæsarean section.

The avoidance of post-partum hæmorrhage:—

The treatment is principally prophylactic. Bleeding frequently occurs in those with low blood-pressure that may be raised during month preceding by various drugs. After labor pituitrine and ergotine, hypodermically, are to be used to control hæmorrhage.

Dr. A. A. Macdonald discussed the subject of Uterine Hæmorrhage in the non-Pregnant Uterus before the Menopause.

The various hæmorrhages from birth to the menopause may be put into two classes: (1) from general causes; (2) from

local causes. Those from general causes include (a) hæmophilia—illustrated by a case occurring in new-born child associated with bleeding from umbilicus and with subcutaneous bleeding. Local pressure, packing, and adrenaline were used successfully and the child recovered; (b) anæmia, scurvy, shock, and other conditions which may be responsible, which are to be treated according to indications. In the excessive bleeding at or about puberty curettage may be valuable. It is to be used with extreme care and only under strict surgical precautions. When packing is required aseptic or iodoform gauze may be used.

Hæmorrhage may be due to (a) ovarian tumors, (b) malignant growths of cervix—these, of course, require prompt surgical treatment, and if diagnosed early may be thoroughly extirpated, (c) polypoid growths may cause very severe bleeding; (d) fibroid tumors, the submucous causing the most severe bleeding. These may be treated locally by electricity, but this is slow and tedious. Symptomatic improvement comes early and hæmorrhage may cease promptly. One such case returned twelve years later with purulent discharge and recurrence in a more severe form. Hysterectomy is the most satisfactory treatment. A suprapubic amputation will often be all that is necessary.

Dr. F. A. Cleland considered the subject of Uterine Hæmorrhage at the time of the Menopause and after.

He defined the menopause and discussed our present knowledge of the same and the theories of the causation of the phenomenon. It seems to be associated with retrogressive changes within the ovary. The unusual flow of blood at the time of the menopause should be considered pathological. A study of private case records showed that in 45 per cent. the menopause occurred between the ages of 46 and 50; in 14 per cent., 51 and 55; in 18 per cent., 41 and 45; in 10 per cent., 36 and 40; in 6 per cent., 31 and 35.

If bleeding occurs from cervix tissue may be removed and examined. The same is true of bleeding from the interior of the uterus. Curetting under anæsthesia is to be done and the scrapings examined.

11 per cent. of all women dying after 35, die of cancer of uterus. 65 per cent. of the hæmorrhages occurring after the menopause are due to cancer. Bleeding is not the first symptom of cancer, a serious discharge precedes it. A fibro-myoma usually increases in size during the fourth and fifth decades.



As a rule total extirpation is the best treatment if near the menopause. In earlier years conservative surgery which excises the growth and retains the uterus is to be advocated. About the menopause is the time that diffuse fibrosis is usually found. Bleeding may be associated with arterio-sclerosis of the uterine vessels. In some cases no cause can be found for the bleeding. A careful study of the histology of the uterus and its glands shows no relation existing between the glands and the hæmorrhage. Curettage would seem to be of only temporary benefit. It is one of the most abused operations of surgery. After the menopause it is of service only for purposes of diagnosis.

In a study of the bleedings after the menopause the first duty is to exclude the possibility of malignant disease. Uterine hæmorrhage may be associated with heart disease, liver disease, kidney disease, gout, and various blood conditions and with syphilis, for which conditions local treatment will secure no real benefit.

Dr. Cleland summarized his paper thus:

1. The menopause is probably induced by retrogressive changes in the ovary.

2. The menopause is subsidence of the flow of blood—and increase in the flow is always pathological.

3. The menopause may occur during a period of thirty years or more.

4. A local examination should always be made where hæmorrhage occurs near the menopause.

5. The necessity of professional and public education regarding the early symptoms of cancer of the uterus.

6. In severe cases of uterine hæmorrhage which have resisted all medicinal treatment and the patient is becoming progressively weaker, hysterectomy is indicated.

7. There seems to be no connection between hyperplasia and hypertrophy of the endometrium and hæmorrhage from the uterus.

8. At or near the menopause the curette is of little use except for diagnostic purposes.

General discussion followed, opened by Dr. B. P. Watson. He asked Dr. McIlwraith to modify his statement as to the exploration of every uterus after abortion, e.g., those from which the complete ovum has been expelled and recognized as such. In placenta prævia, with only partial relaxation of cervix, packing of the vagina is to be practiced. From the scrapings of the uterus little of real value can be deduced unless

one knows the stage of the menstrual cycle at which the curetting has been done.

Dr. Crawford followed. He insisted that only bimanual examination under anæsthetic can make a differential diagnosis between normal and extra-uterine pregnancy. In normal pregnancy one must be careful in deciding that abortion is inevitable—many cases apparently so will, with careful treatment, gradually improve, allowing of delivery at term.

Dr. Marlow stated that some of the most severe uterine hæmorrhages he had seen were associated with luetin tumors of the ovary. It is also a frequent condition in school-girls associated with nervousness. He pointed out that the bleeding from fibroids was usually associated with absence of muscle control of the uterine mucosa allowing free bleeding from open sinuses. This absence of muscle contraction also explains the bleeding of an atonic uterus.

Dr. Machell thought that women should be made aware of the high mortality from cancer of the uterus after the age of forty.

Dr. McMahon also took part in the discussion.

Dr. McIlwraith, in reply, insisted on the necessity in most cases of digital exploration of the uterus after abortion, to be assured that it is perfectly clear of placental tissue. Even where a complete ovum appears to have been passed, not infrequently shreds of tissue will be found which may cause serious future trouble—for example, the so-called placental polypus which may render a woman sterile during the rest of life.

Dr. Macdonald recalled some cases where, in removing diseased tubes or tubes involved in uterine growths, if some ovarian tissue had also been removed the uterine hæmorrhage was distinctly lessened. Doubtless, the lessened ovarian function influenced the activity of the uterine mucous membrane.

Dr. Cleland also replied, referring to the educational campaign to lead the laity to know the symptoms of cancer of the uterus and to the value of transfusion in the bleeding of the newborn child.

**PROCEEDINGS OF THE SECTION OF MEDICINE,  
ACADEMY OF MEDICINE, TORONTO**

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**JULIAN LOUDON,**Editor, Section of Medicine, Academy of Medicine, Toronto.

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The regular monthly meeting of the Section of Medicine was held on January 12th, 1915, with Dr. A. R. Gordon in the chair. The programme had been arranged to include (1) clinical cases, (2) a description of an epidemic of tonsillitis and (3) a symposium on dementia præcox, Korsakoff's psychosis, and dementia paralytica.

**CLINICAL CASES.**

The only clinical case, apart from those shown in connection with the symposium, was presented by Dr. Julian Loudon. The patient, a drug clerk, male, aged 34, was admitted to St. Michael's Hospital on December 7th, 1914, complaining of wasting and weakness of the muscles of both hands. About eight years ago, the front and outer side of the right forearm, at a distance of three inches above the wrist joint, had been deeply cut with glass. Immediately following this accident the divided structures were sutured together by Dr. Duncan Anderson; but the anterior wound afterwards suppurated for several weeks, and when it healed a painful scar remained. From the day of the accident there was some loss of sensation over the index and middle fingers, and a few months later the patient noticed some wasting of the thenar eminence. At present the patient stated that the hand was in as good a condition as at any time since the accident.

Last winter it was noticed that the other hand used to become numb and that there was difficulty in buttoning the clothes. About eight months ago wasting was noticed in the first interosseous space, and lately this wasting had become more evident.

On inquiry concerning bladder symptoms it was learned that there was difficulty in holding the urine during the last year. This trouble with micturition was of a peculiar type. If one drachm of urine was passed there was then no difficulty in retaining the remainder of the urine in the bladder for about two hours.

In the past the patient had had a couple of attacks of urethritis and a penile sore. In 1904 and in 1912 the left



shoulder had been dislocated. About six months before admission to the hospital the patient stated that he began to drink heavily and often consumed as much as a quart of whisky a day.

On examining the right arm the flexion of the index finger was weak owing to the involvement of the flexor sublimis tendon in the painful scar. The abductor pollicis was markedly wasted and quite paralyzed. The opponens pollicis may have been affected to some extent, but it was difficult to investigate on account of its deep position. The sensation to light touch, pain, heat, and cold was affected over the whole of the front of the index and middle fingers and over the upper fourth of the back of the same two fingers. This area was much smaller than usually occurred from a complete division of the median nerve, and the light touch did not seem to be lost more than the pain, heat, and cold, as was usual in peripheral injuries of nerves. The deep sensibility was preserved.

On examining the left arm all the interossei were seen to be definitely wasted and their actions were weakly performed. All the other muscles of the hand supplied by the ulnar nerve seemed to be slightly affected. The thenar eminence did not appear to be as prominent as usual. There was no sensory change. All the muscles of the forearm were strong and well developed.

The remainder of the routine examination of the nervous system revealed very little except quite active tendon reflexes in the arms and legs. There was no ankle clonus and no plantar reflex. There was no mental disturbance of any kind. The cranial nerves were performing their normal functions and the optic discs were of usual appearance. The posture and gait were quite natural and Rombergism was absent. The X-ray plates failed to show any abnormalities in the neck or left shoulder joint. The right radial pulse was not so easily palpated as the left. The Wassermann reaction was strongly negative, and nothing abnormal was found in the examination of the urine.

The cystoscopic examination, which had been made by Dr. George Wilson, showed that there was a fine trabeculation of the inner surface of the bladder. This trabeculation was most noticeable behind the trigone, and was not to be explained by any local condition of the bladder, urethra, or prostate.

In regard to diagnosis, Dr. Loudon stated that the condition of the right hand could be best explained by a partial

division of the median nerve. This diagnosis was strongly supported by the fact that the weakness and loss of sensation developed directly after an injury and had not progressed. The weakness and wasting of the other hand was considered to be due to progressive muscular atrophy, or if the exaggerated tendon reflexes were considered to be due to pyramidal tract degeneration the disease would be more properly called amyotrophic lateral sclerosis. It was stated that atrophic changes in the bladder had been described in certain spinal cord diseases by Mr. Thomson Walker, of London, and also by others; but as far as Dr. Loudon was aware, amyotrophic lateral sclerosis was not one of these diseases.

In the discussion which followed, Dr. Goldwin Howland agreed with the diagnosis of partial division of the median nerve, but was somewhat doubtful as to the diagnosis of amyotrophic lateral sclerosis. He thought the possibility of a localized alcoholic neuritis should have been seriously considered. Dr. Loudon, in reply, said that alcohol had not been regularly consumed by the patient until the wasting of the left hand had commenced; and also that the absence of any sensory change (except over the right hand) and the presence of brisk tendon reflexes would be against the diagnosis of alcoholic neuritis.

#### EPIDEMIC TONSILITIS.

Dr. W. L. Bray then read a paper on the epidemic of tonsillitis which occurred amongst the tuberculous patients in Ray Brook Sanitarium, New York. The epidemic began with an outbreak of three cases on January 23rd, 1914. Three days later the total number of affected cases out of a population of approximately four hundred had risen to forty. Inquiry revealed that the epidemic was sharply localized, and that there were no cases in the immediate neighborhood. After several of the usual sources of origin had been eliminated, the milk supply was investigated. A milker on one of the two farms, which supplied only the Sanitarium, was found to have just recovered from a sore throat. The milk was then pasteurized, and only one case developed subsequent to this procedure.

Twenty-two cases, most of which occurred in the first forty-eight hours, were studied bacteriologically in detail. The data obtained and presented on a chart pointed conclusively to a streptococcus infection as the etiological factor of the epidemic. A further interesting point was that in fifteen of the cases the

streptococci isolated gave biological reactions identical to those of the organism isolated from a child on one of the farms from which the milk was obtained. The chief organism was of the pyogenes type of streptococci, and other organisms showed such varying characters as would be exhibited by the streptococci normally present in the upper respiratory tract.

A comparative clinical study was made to determine the effect of the transient streptococcus infection on the progress of the pulmonary tuberculosis from which all the patients were suffering. The distribution of the epidemic did not appear to be influenced by the stage of the pulmonary disease. With the disappearance of the local throat inflammation in the afebrile cases, the fever promptly returned to normal. In those cases previously exhibiting fever, there was no tendency to assume higher limits. The average loss of weight was five and a half pounds, but after a lapse of one month the lost weight was regained in practically every case. The amount of tubercle bacilli in the sputum was unchanged as far as could be judged. In six cases the clinical course of the tuberculosis was apparently detrimentally influenced as a result of the throat infection.

In conclusion it was stated that milk borne epidemic sore throat, as reported by English authors and as occurred in most of the epidemics in America, was a severe disorder and had a relatively high mortality. In striking contrast to such pictures the present epidemic was characterized by a mild form of infection with few resultant complications and no mortality. Notwithstanding the mild nature of the infection, the evidence seemed to sustain the supposition that acute inflammatory throat conditions should be especially avoided in pulmonary tuberculosis because they might exert a decidedly harmful influence on the pulmonary lesion.

Dr. John Ferguson expressed his appreciation of Dr. Bray's excellent paper, and pointed out that it emphasized the fact that the tonsil was the gateway by which many organisms found their way into the system. The lowering of the vitality then enabled other infections to make advance. Dr. Neal and Dr. Hammond were visitors from Peterborough, and both took part in the discussion. They expressed themselves as having enjoyed Dr. Bray's paper, and asked for a good attendance of the fellows of the Academy at the Peterborough meeting of the Ontario Medical Association. Dr. John Hunter also took part in the discussion.



## SYMPOSIUM ON MENTAL DISEASES.

Korsakoff's polyneuritic psychosis was described by Dr. C. K. Clarke, and three cases of the disease were presented. It was said that the chief characteristics were irritability, weakmindedness, disorientation in time and place, and loss of memory for recent events. In addition there was peripheral neuritis, especially in the legs. The onset was almost always sudden and sometimes associated with epileptiform seizures. Most cases exhibited paramnesia and would "romance" in regard to recent events. They might tell very plausible stories, and then forget what they had said and deny their previous statements. On account of such mental confusion they were often regarded as liars.

The first case presented told a story which was a pseudo-reminiscence. He described how Dr. Clarke and he had gone to London by the Grand Trunk Railway, passing through Woodstock on the journey. After remaining three months in London the patient said that they both returned again. The facts were that they had gone to London by the Canadian Pacific Railway, and had not passed through Woodstock. They had stayed only part of one day in London and had returned the next morning. A few months previously the patient was in the habit of describing a trip to Toronto Island which had never been taken.

The second case was that of a man who had been completely disorientated. A mass of pseudo-reminiscences still existed. He described how he had signed the pledge at the age of sixteen, and said that since then he had not tasted liquor. In spite of the fact that he had been under observation in Toronto for several months, he stated that he had visited Ville Marie in Quebec a week ago.

The third case was one which was almost well. He used to tell an erroneous tale as to how he came to the hospital, and used to be quite confused. An interesting point in his case was wasting of the thenar eminence of the right hand. Dr. Clarke considered this wasting to be due to a localized neuritis. All the cases exhibited had shown signs of peripheral neuritis during the course of the illness.

Seven cases were next exhibited by Dr. Harvey Clare to illustrate his remarks on dementia præcox and dementia paralytica. The first case of dementia præcox exhibited was in a youth of seventeen who had first been admitted to Queen Street

Asylum three and a half years ago. He had worked quite hard as a boy and had passed the examination for entrance to the high school at fourteen. When he was admitted to the asylum he was excited, confused, and restless, and in addition had delusions of sight, hearing and taste. He remained in this condition for about two months. When the attack was over he was found to be far above the average in intelligence. When he was discharged he worked as an office boy for about a year. He then came to the asylum in an excited condition and said he was sick. When admitted he went into the same condition as formerly and remained in such a state for three months. During last year he gained forty or fifty pounds in weight. He was now quite capable of carrying out routine work, but lacked initiative. Dr. Clare stated that it would be nonsensical to continuously confine such cases in asylums. They were much better outside. The majority of cases of dementia præcox were never admitted to the asylums at all.

The second case was in a young man who had come to Canada when sixteen. He had worked for a couple of years after coming to this country and had gradually drifted downwards in the world because he could not apply himself to any occupation. He would do anything he was directed to do, but was undecided when left to himself. His hands were cold, red and clammy, and he was almost constantly bothered by hearing imaginary voices.

Another case of dementia præcox was in a man who had come to Canada seven years ago. He worked as a barber in Winnipeg for three years, and then was sent to an asylum for a short time. He next went to Selkirk and again worked at his profession for another three years. Last spring he came to Toronto and had since been unable to work. From Toronto he went to Winnipeg and then back to Toronto. His expression was now stolid and indifferent. There was no excitement and no melancholia. He took no interest in anything. He had mannerisms and hallucinations of hearing. In regard to the voices which were heard, Dr. Clare stated that it was important to ascertain what the voices were saying, in order to know whether the patient was likely to react and become violent.

A case of manic-depressive insanity was next shown as a contrast to the cases of dementia præcox. The patient was in the excited stage and the motor and psychic activity were much increased. He was in touch with his surroundings and was feeling well. He was not indifferent, but had very decided

opinions. There was a tendency to talk in rhyme. There had been twenty or thirty of such attacks of excitement and every previous attack had been followed by a period of depression.

The melancholic stage of manic-depressive insanity was illustrated by the fifth case. There was psychic and motor retardation and mental depression. The patient talked in a low voice and said he was not feeling well. Last year he had been in the opposite state.

Dr. Clare next passed on to the subject of dementia paralytica and showed two cases. He stated that the disease was on the increase in Toronto. Most of the cases came to the asylums undiagnosed and this was inexcusable. The flattening of the face, pleased smile, slurring speech, and shuffling gait in a middle-aged person were almost enough to make a diagnosis at first sight. There was failure of memory, and, as it continued to leave, the patients filled in the gaps by fabrications and falsifications. They became careless, and it was necessary to look after them and keep them clean. They were liable to have remissions which, in some cases, lasted for years. It was characteristic for them to feel well and never suffer from pains or aches. Dr. Clare thought that the help which doctors were getting from the newer laboratory methods was making them more careless in the clinical investigation of their syphilitic cases.

Dr. McVicar was next asked to speak on the pathology of the three diseases which had been chosen for the symposium. Dementia præcox was stated to have no gross pathology, pathological histology, or special chemical reactions. The study of the disease should be made by testing the mental reactions in a psychological laboratory. The treatment, which should be intelligent and systematic, was a public health question. Korsakoff's disease, in most cases, was a toxæmia, due to alcoholic poisoning. There were gross changes in the nervous system and this was the reason that the prognosis was not good. There was no positive laboratory diagnosis, but the negative findings in the Wassermann reaction and the cell count of the cerebro-spinal fluid were useful in differentiating the disease from general paresis, which it often simulated. A useful clinical sign of differentiation was that the cases of alcoholic dementia were autocritical, while the general paretics never found fault with themselves. In general paralysis the Wassermann reaction with the cerebro-spinal fluid and the globulin reaction were always positive, and the cell count in the cerebro-spinal fluid was always



above normal. There were gross changes in the brain and drug treatment was of little avail. The treatment should be begun in the ordinary syphilitic state before the general paralysis had begun; and the onus of this must rest on the general practitioner. It was recommended that there should be depots where the general practitioners might have Wassermann reactions performed on needy patients without a fee.

Dr. Armour spoke of the impairment of the fields of vision and said that they may be lessened in alcoholic psychosis as well as in general paresis. In both these conditions there was loss of memory for recent events. He also stated that he agreed with Dr. Clarke in considering the wasting in the right thenar eminence in one of the cases of Korsakoff's disease to be due to alcoholic poisoning.

In discussing the cases of dementia præcox, Dr. Howland said that the idea of observing cases while they were at work appealed strongly to him. He said that there should be some place, apart from the hospital where these cases could be under control and sent to their proper work. He also stated, in connection with alcoholic cases, that he had seen increased tendon reflexes, ankle clonus, and a double extensor response in patients who had been drinking heavily.

Dr. Forster, who was to have discussed the treatment of the cases considered, said that he had little to say because much of the treatment had already been given by previous speakers and also because he intended to speak of treatment at a meeting of the Academy to be held at a later date. He had been encouraged by the remarks which he had heard, and thought that a hospital was the proper place for dementia præcox patients to visit in order to get a special analysis and enlightenment as to the possibilities of treatment. He thought social service nurses might be of value in visiting the homes of the afflicted.

Dr. Clarke said that he considered himself to be an optimist, but he had listened to greater optimists to-night. He said that those suffering from certain forms of dementia præcox were most dangerous to the community and should be under constant supervision. He had had a case in his house for years as a servant, but thought that he may have been unwise in this as there had been a period in which this patient had been extremely dangerous. He could not agree to putting the responsibility on people who did not understand the condition or sympathize with the sufferer. He said that he agreed with Dr. McVicar in saying that the psychological side in dementia præcox was im-

portant, but the chemical side should not be ignored, as it was through this side that the mental changes were produced. He also added in regard to the autocritical faculty of the alcoholic demented that all men who considered themselves to be fools were not suffering from Korsakoff's psychosis.

After the chairman had announced that the next meeting would deal chiefly with the therapeutic action of certain drugs, the January meeting came to a close.

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### Treatment of Tetanus by Baccelli's Method

(*Bulletin de l'Académie de Médecine.*) A series of twenty-two cases is reported in which Baccelli's method was applied, at first cautiously, later with greater freedom, the procedure ultimately carried out being as follows: Twice daily an injection of forty to fifty c.c. of a two per cent. phenol solution was given subcutaneously, in the vicinity of the wound whenever possible, otherwise in the thigh or abdomen. The patients thus each received 1.6 to two grains of phenol a day, and in two, the injections were continued for nearly a month. The only untoward effects noted were local erythema in two cases and an accumulation of aseptic, serous or seropurulent fluid where numerous injections had been given in the thigh. No signs of general intoxication, such as dark colored urine, were ever noticed. Kept very quiet and in semidarkness, the patients were also given, morning and evening, an enema containing six to eight grams of chloral hydrate, one or two yolks of egg, and 250 grams of milk. Six patients recovered from the tetanus, though two of these succumbed soon after to other conditions; two of the cases with permanent recovery had been of extreme gravity. That the administration of phenol is of value seemed clearly proved in at least one case, in which a relapse promptly took place when the phenol was temporarily discontinued, and improvement again followed when the drug was resumed. Elimination of the phenol was found to be very slow, and the drug is credited by the author with a distinct microbicidal action in tetanus. Stress is laid upon early treatment, and upon dysphagia without local cause and contraction of the wounded area as premonitory indications of the disease.—*N. Y. Medical Journal.*

## Selected Articles

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### MEDICAL NOTES ON ENGLAND AT WAR

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BY SIR WM. OSLER, BART.

Regius Professor of Medicine, Oxford University.

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Within two weeks after the order for mobilization, Colonel Ranking had the schools of Oxford ready for a hospital of nearly 500 beds, and a staff organized. At present in Oxford there are nearly 1,000 beds available, as the town hall and the workhouse have been added and about eighty beds provided at the Radcliffe Infirmary. Up to Jan. 10th, between 2,000 and 3,000 wounded have been treated.

Private enterprise has also furnished excellent hospitals. The Committee of American Ladies in London has opened the American Hospital at Paignton, near Torquay in Devonshire, in the splendid house handed over to it by Mr. Paris Singer. There are 200 beds, and an additional sixty beds will be provided. The work is in charge of Dr. Beal of the American Red Cross.

The Canadians resident in London have opened a hospital near Shorncliffe, which is in charge of Dr. Armour and myself, in a house provided by Sir Arthur and Lady Markham. The resident surgeons are Dr. Wallis of Guelph and Dr. Stewart of Calgary. Miss Macmahon of Toronto, formerly one of the assistant superintendents at the Johns Hopkins Hospital, is in charge with a group of Canadian nurses.

From the base hospital in Oxford the convalescents flow over to Blenheim Palace, the library of which has been converted into a ward for sixty patients, and to Lady Wantage's at Lochinge, and to Mr. Mortimer Singer's at Milton Hill. The latter is one of the most ideal hospitals I have ever seen. Mr. and Mrs. Singer were about to move into their newly arranged house, but have converted it into a hospital for 150 beds, and are providing everything for the comfort of the soldiers.

In Cambridge, Birmingham, Bristol and London, large hospitals have been opened, and many of the Metropolitan hospitals have set aside a certain number of beds, so that one may say



that the accommodation throughout the country both as regards hospitals and convalescent homes is ample.

Altogether, the health of the troops in the training camps has been excellent, and, fortunately, until recently the weather has been good. Up to date there has been no typhoid to speak of. Inoculation is not compulsory, so that a number of us have been going about the camps lecturing to the men, the large majority of whom have readily submitted to inoculation.

The outstanding feature of the campaign in France and Belgium is that wounded, not sick, are sent from the front. So far, disease has played a very small part and the troops have had wonderful health, in spite of the exposure in the trenches. The damage has been from the pointed bullet, the round shrapnel bullet, and from fragments of the shrapnel case, and the severity of the wounds caused are in this order. From the military point of view, the modern bullet is not a very effective agent. At the right spot it kills; but it may pass harmlessly through head, chest or abdomen, and may splinter a bone without causing sepsis. The orifices of entrance and exit are small, heal rapidly, and the high velocity appears to sterilize the tract. I have seen one case of bullet through the frontal lobes, four through the chest, and two through the abdomen without serious symptoms. The chest cases are of special interest, as one would not think it possible for a bullet to pass through pleura and lung without damage. At Paignton there have been three cases without pleurisy or hæmothorax. In one the bullet entered the second right interspace, passed through the anterior mediastinum and the margin of the left lung and came out in the second interspace, about four inches from the left sternal border. Cough and hæmoptysis followed, but the patient rapidly recovered. In another man the point of entrance was to the left of the nipple and the exit below the angle of the right scapula. He spat blood at first, but when I examined him about two weeks later there was no friction, flatness or effusion.

It would not seem possible that a bullet could go through the abdomen without doing any harm, but a Highlander at the base hospital, Oxford, had the wound of entrance about two inches to the left of the navel and the exit about three inches from the spine. He had had no abdominal symptoms. The modern rifle bullet may leave a clear wound which quickly scabs over and heals rapidly. The round shrapnel bullet does

more harm, with a bigger orifice and a larger, and sometimes rugged, exit. This is an artillery war in which shrapnel does the damage, tearing flesh, breaking bones, and always causing jagged, irregular wounds. And here comes in the great tragedy—sepsis everywhere, unavoidable sepsis! The conditions on the battlefield have made it impossible always to give first aid, and within twelve and twenty-four hours the ragged, open wounds have become infected from the clothing or the soil. The surgeons are back in the pre-Listerian days and have wards filled with septic wounds. I have seen sights that remind me of student days at the Montreal General Hospital when all the compound fractures suppurated, and we dressers really had to dress wounds. It may be possible to improve conditions, and already the transport of the wounded from the front has been hastened, and measures are being taken to provide simple antiseptics; but the wound of shell and shrapnel is a terrible affair, and infection is well-nigh inevitable. It is surprising what may be done in some of the worst cases. Among the first batch of German wounded admitted to the Oxford base hospital was a man with high fever, right hemiplegia and aphasia. He had a large wound of the skull on the left side. I saw him with Mr. Whitelocke, as meningitis was feared, but after the wound was freely opened and a part of a bullet and a bit of his cap were removed, the temperature fell, the paralysis cleared, and he has made a complete recovery. An interesting point is the extent of suppurating surface that may exist without fever so long as free drainage exists. It is, however, a slow tedious business, with a type of wound demanding much nursing and dressing. Two points then stand out prominently—the comparative mildness of the wounds of the high-velocity bullet, and the wide-spread prevalence of sepsis in the crusted and lacerated shrapnel wounds. Two other infections have caused trouble. The fighting has been in highly cultivated districts where the tetanus bacillus thrives, so that many cases have developed. At first there was not sufficient antitoxin, but now it is given at the front as early as possible. There have been only two deaths here among seven cases. At Paignton two very severe cases recovered. The intrathecal method, as warmly recommended by Park, has been used. The other infection is more serious, an emphysematous wound gangrene, due to an anaerobic gas bacillus. It appears within the first four days of the injury and may prove rapidly fatal by sepsis. The emphysematous swelling, the spreading

discoloration, gaseous discharge and terrible odor make the diagnosis easy. The phlegmon bacillus of Frankel is a widely distributed organism, and infection probably comes from the soil.

There will be countless opportunities of studying lesions of the nervous system, particularly of the peripheral nerves. I have already seen several cases of severe neuritis of the type described in the monograph of Moorehouse, Mitchell and Keen, with great swelling. One patient at the American Hospital with a clean bullet wound high up on the inside of the arm has complete loss of power of the arm, with agonizing pain and great swelling. Later, it would be worth while for the government to concentrate these cases in one large hospital, as was done during the Civil War and gave the authors just named their great opportunity. Perhaps the case that has interested me most was a paraplegia spastica cereбрalis. The man, a private in the Lancashire Fusiliers, had a bullet wound at short range, which ploughed along the parting of his hair for about three inches, grooving the bone. It happened on September 13, and he was unconscious for a time, had loss of power in the legs and was carried into the cart. He gradually recovered the use of his legs, but has developed a spastic gait, with great increase in the reflexes. Another point of interest is the paralysis of the flexors of the feet, with some wasting. This makes the gait very remarkable, a combination of the spastic and step-page. No doubt here there was a bilateral hæmorrhage, and an anatomic condition similar to that which occurs in Little's disease.

At the Beechborough Hospital there was a remarkable spurious aneurysm in a Belgian shot through the right cheek; the bullet passed through the mouth, under the jaw beneath the skin of the neck, and was just below the left clavicle. The cervical triangle was filled with a pulsating mass, without thrill or bruit. It appeared to be a traumatic aneurysm, but Dr. Armour removed the bullet, relieving the tension, and the pulsation has gradually disappeared. It was probably hæmatoma with communicated pulsation. At Paignton there was an arteriovenous aneurysm of the left brachiæ which seemed doing very well at first, but then began to increase rapidly, so that Dr. Beale did an Antyllus operation.

Considering the distance that the wounded men have had to travel; from the front to the clearing hospital, then by ambulance train to the base hospitals, by ship to one of the ports, then by train or motor ambulance to the general hospitals—



well termed a *via dolorosa*—their condition has been remarkable. The mortality has been everywhere very low.

I am sure your readers would like also to hear of the work which is being done to help our Belgian colleagues who have suffered so terribly. Within a week after the fall of Louvain, one of the professors called and told such a sad story of their plight that we organized a university committee to offer hospitality to any who cared to accept, and my wife wrote at once to her friends in the United States asking for help. There are now sixteen Belgian professors here, with their families numbering nearly 100, for whom have been provided houses or lodgings, and who are given monthly grants for their support. The money for this has very largely come from our friends in the United States; and I would like here to express the indebtedness of the committee to Dr. J. William White, of Philadelphia, and to Mrs. Fletcher, of Baltimore. The financial position has been greatly relieved by the kind offer of the Rockefeller Foundation to subsidize any science professors who wish to continue their work at English universities. The two most distinguished medical professors are Professor Denys, who is working in the laboratory here, and Professor Van Gehuchten in the Research Hospital at Cambridge, both from Louvain.—*Abstract. J.A.M.A.*

## THE NEW PHARMACOPOEIA FROM THE PRESCRIBER'S POINT OF VIEW

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The new British Pharmacopœia came into force on 31st December, and on and after that date all prescriptions must be dispensed according to its requirements. It is, therefore, most essential that physicians should have an intimate knowledge of the more important changes, some of these being quite serious from a therapeutic standpoint. With this end in view the following summary has been compiled for their guidance, and it cannot be impressed too strongly on prescribers that when the old preparation is required the sign "B. P., '98," should be distinctly added, otherwise the patient is certain to get the new preparation.

### NEW DRUGS AND THEIR PREPARATIONS.

**ACIDUM ACETYL-SALICYLICUM.**—Should always be prescribed in place of Aspirin, which is a German product. Dose, 5 to 15 grains.

**ACIDUM HYDRIODICUM DILUTUM.**—Contains 10 per cent. HI. *Syrupus Acidi Hydriodici* contains 10 per cent. of the dilute acid. Dose,  $\frac{1}{2}$  to 1 fl. drachm.

**ADRENALINUM** and *Liquor Adrenalini Hydrochloricus* (1:1000).

**BARBITONUM.**—Replaces Veronal (German). Dose, 5 to 10 grains.

**BENZAMINAE LACTAS.**—Represents beta-Eucaine Lactate. Dose,  $\frac{1}{8}$  to  $\frac{1}{2}$  grain.

**CALCI LACTAS.**—Dose, 10 to 30 grains.

**CANTHARIDIN.**—Replaces Cantharides in the preparations: Acetum, Emplastrum, Tinctura (Colorless), Unguentum, Liquor Epispasticus, and Collodium Vesicans. This last is colored with cochineal.

**CHLORAL FORMAMIDUM.**—Chloralamide, Hypnotic. Dose, 15 to 45 grains.

**CRESOL.**—Disinfectant. Used in preparation of *Liquor Cresol Saponatus*.

**DIAMORPHINAE HYDROCHLORIDUM.**—Replaces the German article, heroin hydrochloride. Dose, 1-25 to 1-8 grain.

**ETHYL CHLORIDUM.**—Local Anæsthetic.

**FERRI PHOSPHAS SACCHARATUS.**—Dose, 5 to 10 grains.

GUAIACOL (Dose, 1 to 5 minims) and *Guaiacol Carbonate* (Dose, 5 to 15 grains).

HEXAMINE.—Replaces Urotropine, etc. Dose, 5 to 15 grains.

INJECTIO STRYCHNINAE HYPODERMICA.—Contains 0.75 per cent. strychnine hydrochloride. Dose, 5 to 10 minims.

LIQUOR FORMALDEHYDI and *Liquor Formaldehydi Saponatus*.  
—The latter resembles a proprietary antiseptic.

METHYL SALICYLAS.—Dose, 5 to 15 minims.

METHYL SULPHONAL.—Replaces Trional. Dose, 10 to 20 grains.

PELLETIERINAE TANNAS.—Tannacide. Dose, 2 to 5 grains.

PHENOLPHTHALEINUM.—Synthetic laxative: replaces Purgen, etc. Dose, 2 to 5 grains.

RESORCINUM.—Antiseptic, used in skin diseases. Dose, 1 to 5 grains.

SENNAE FRUCTUS.—Senna pods. No preparations are given.

SODI PHOSPHAS ACIDUS.— $\text{NaH}_2\text{PO}_4$ . Given with hemacine to render the urine acid (see *Prescriber*, Jan., 1914, p. 2).  
dose, 30 to 60 grains.

STRONTII BROMIDUM.—Dose, 5 to 30 grains.

THEOBROMINAE ET SODII SALICYLAS.—Replaces Diuretin.  
Dose, 10 to 20 grains.

ZINC OLEO-STEARAS.—Used as a dusting powder.

#### PREPARATIONS WHICH HAVE BEEN ALTERED.

EMPLASTRUM BELLADONNAE.—Half former strength (0.25 per cent. alkaloids).

EXTRACTS.—These are now in the form of dry powder, but strengths are the same as before.

HYDRARGYRUM OLEATUM.—Contains 20 per cent. yellow oxide dissolved in oleic acid and liquid paraffin.

INJECTIONS, HYPODERMIC.—Morphine (2.5 per cent.) and Cocaine (5 per cent.) are both half former strength.

LINIMENTUM HYDRARGYRI.—About half former strength.

LIQUOR HYDRARGYRI PERCHLORIDI.—Now 1:1000; formerly one grain in two fluid ounces, or 1:875.

PILULA PHOSPHORI.—One per cent., or half former strength.

SPIRITUS JUNIPERI.—Ten per cent. or double former strength.

TABELLAE TRINITRINAE.—Weaker: 1-130 grain (0.0005 gm.) instead of 1-100 grain.

TINCTURES.—Several most important changes are made in the strengths of tinctures. The following should particularly be noted:—



ACONITE.—Double former strength. Dose, 2 to 5 minims.

BELLADONNA.—Two-thirds former strength. Dose, 5 to 15 minims.

CAMPHOR COMPOUND.—Ten per cent. stronger in opium. Dose, 30 to 60 minims.

COLCHICUM.—Half former strength. Dose, 5 to 15 minims.

DIGITALIS.—One-fifth weaker (1:10 instead of 1:8). Dose, 5 to 15 minims.

IODINE.—Two tinctures are given: *Tinct. Iodi Fortis*, 10 per cent., and *Tinct. Iodi Mitis*, 2.5 per cent. The latter is the same as in the 1898 edition, and *is to be dispensed when Tinctura Iodi is ordered without any distinction.*

NUX VOMICA.—Half former strength. Dose, 5 to 15 minims (same as before!).

OPIUM.—One-third stronger. Dose, as before.

STROPHANTHUS.—*Four times* former strength! This tincture is now 1:10 (Dose, 2 to 5 minims), as against 1:40 in 1898, and 1:20 in 1885. The fat is first extracted with ether.

N.B.—When prescribing *Tincture of Strophanthus*, the physician should invariably state which preparation he wants: 1885, 1898, or 1914.

UNGUENTA.—The strength of the following has been altered:—

CARBOLIC ACID.—Weaker, 3 per cent. as against 4 per cent. in 1898.

MERCURY.—Weaker, 30 per cent. as against 50 per cent. in 1898.

AMMONIATED MERCURY.—Weaker, 5 per cent. as against 10 per cent. in 1898.

COMPOUND MERCURY.—Weaker, the Ung. Hydrarg. used in its preparation being weaker.

MERCURY SUBCHLORIDE.—Stronger, 20 per cent. as against 10 per cent. in 1898.

—*The Prescriber.*

## Editorials.

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### CANADIAN LAW JOURNAL AND THE WAR

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We have in this issue given some interesting information respecting the Faculty and Students of Toronto University taken from a statement issued from the President's office. Since sending that to press we have read an editorial in the *Canadian Law Journal*, which is rather interesting. Although we may not agree with it entirely we consider its views are worthy of consideration. The writer contends that in the matter of public policy alien enemies whether naturalized or not should not be retained in any public position. Among other things it states that our universities should not appoint a professor or teacher who is not an English born British subject, or one who has been naturalized before his appointment and in time of peace.

The contention of President Falconer that the University of Toronto needs teachers is denied. It goes on to say that it is a matter of no importance whatever during this war for our national existence whether there are any teachers in the university, indeed, whether there is or is not a university at all, unless, indeed, it be used as a recruiting centre. Rather let the buildings be turned into a barracks and the campus into a parade ground where the President and professors would teach their students the rudiments at least of military training, and so fit them to fight for their hearths and homes and for the existence of the Empire, and for freedom and liberty

the world over. The example of Oxford and Cambridge in this regard is cited in support of this contention.

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### TORONTO UNIVERSITY AND THE WAR

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We are glad to be able to announce that the University of Toronto is showing a magnificent spirit in connection with the present war. The following physicians have gone with the First Contingent: Lieut.-Col. Mitchell, member of the Board of Governors, and the following doctors of the Medical Staff: Lieut.-Cols. R. D. Rudolf and W. A. Scott, Major Perry Goldsmith, Capt. G. R. Philp, P. K. Menzies, G. A. Cline and Cooper Cole, Drs. Clutterbuck and A. J. McKenzie. In addition 134 graduates and 86 undergraduates are at the front in France. Three members of the Department of French in University College have been serving with the French Army since the beginning of the war.

Among those who are preparing for the Second Contingent are Lieut.-Cols. Fotheringham and Roberts, Capt. Amyot and Lieuts. Strathy and Bruce Robertson. Apart from these it is known that 53 graduates and 63 undergraduates have been accepted.

At the opening of the Session the Caput, Senate and Faculty Councils passed regulations to provide that standing should be given to those who, by reason of enlisting, have been unable to take the September Supplementary. At the same time it was decided to discontinue all teaching and laboratory work after four o'clock in the afternoon in order to enable the students to take the courses of drill and instruction



required by the regulations of the Officers' Training Corps. About a score of junior members of the staff began about Sept. 15th to take drill and instruction to qualify themselves to be officers in the new corps. Dr. W. R. Lang, Professor of Chemistry, was appointed Instructor for the Military Division and was made Colonel of the new Corps.

On January 22nd, 1,500 students and their officers were reviewed by H.R.H. the Duke of Connaught, who expressed great satisfaction with the splendid turnout. "What pleases me still more is the splendid example you young men are showing to the whole of Canada." He concluded as follows: "As an old soldier and as Governor-General of Canada, I wish to say, that no parade that I have seen, and I have seen many lately, has given me more satisfaction than your parade this evening."

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### INOCULATION AGAINST TYPHOID

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So far as we know inoculation of the Canadian troops against typhoid is compulsory. Every one of the 5,000 on the Exhibition Grounds has been inoculated. The very few who objected were requested to depart at once.

We learn from the *British Medical Journal* that there has been some objection raised against it in England. Sir William Osler in the *Times* begged our soldiers not to allow themselves to be misled by the "misguided cranks who are playing into the enemies' hands," by circulating literature on inoculation containing statements that it is a harmful and

even dangerous procedure. The cranks referred to by Osler are principally of the British Union for the Abolition of Inoculation. England has always had its fair share of cranks, and its cranks are generally supposed to be the most stupid in the world. Fortunately, however, there is a whole lot of common sense in the country.

The *Journal* tells us quite rightly that *Punch* has been the representative of our national common sense. It has certainly been wonderfully interesting during the past six months, and during that time has done great service in the cause of recruiting and keeping the flame of patriotism alive.

The anti-inoculation members have recently done much advertising. The public generally were amazed to see one of their full page advertisements in *Punch* of January 13th. As a consequence the explanation in the next issue, January 20th, was received with great satisfaction. The following is the statement: "The advertisement which appeared in our last week's issue opposing the principle of the inoculation of soldiers against typhoid came in very late and unfortunately its contents were not submitted to the Secretary. 'Mr. Punch' is most absolutely in favor of inoculation against typhoid for the troops."

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### THE OTTAWA WATER SUPPLY

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Mayor Porter headed a civic deputation, which waited on Dr. McCullough, Chief Medical Officer of Health for Ontario, at his office in the Parliament Buildings, February 6th. They laid before him a scheme whereby the Capital could secure water for

fire fighting purposes by a pipe line from Lemieux Island. At present Ottawa pays yearly a surcharge of \$330,000.

We are told by the *Toronto News* that Dr. McCullough warned the delegation that such a scheme must not be introduced in the expectation that it could be made to take the place of a proposal to supply Ottawa with pure water from Thirty-One Mile Lake. As a suggestion for supplying water for fire fighting purposes Dr. McCullough could see no objection, and he and the Provincial Engineer, Mr. Dallyn, promised to go to Ottawa to investigate the proposed scheme. Mayor Porter said he was advocating his scheme simply as a temporary measure to lighten the burden of extra insurance rates in Ottawa.

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### THE OTTAWA RIVER SCHEME

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Speaking briefly there have been for the last two or three years two schemes under discussion by the City of Ottawa respecting their water supply. According to one scheme the citizens should take their water from the great Ottawa River, from which they could be certain to get a sufficient supply for all time to come. The friends of this scheme have stated that the Ottawa River would, in the first place, be fairly good, and in the second place could be so purified by the use of chemicals and mechanical filtration as to make it good drinking water. Those opposed state that this water is not good and cannot be made fit to drink except by the use of large quantities of chemicals including the objectionable hypochlorite of lime.



Some parties asked the question, if the Provincial Board have approved of chlorination of the water in Toronto why had they not approved of the same process in Ottawa?

If it is good enough for Toronto why is it not good enough for us?

There are two simple answers to these two reasonable questions. First, the citizens of Toronto do not think that chlorinated water is good enough for them. A large proportion of the population refuse to drink the city water, and use only bottled water. Six large business firms are selling water, chiefly spring water with a small amount of distilled water, all the year round. They are actively engaged in business, and the quantities distributed by them are enormous. Second, chlorination of the Ottawa River water is a very different matter from chlorination of the clear water of Lake Ontario. The Ottawa River water is largely swamp water and contains an immense amount of swamp debris, or what is called organic matter. In addition the water is badly polluted by disease producing germs. The amount of chemicals required is greatly in excess of that required in Toronto. We are told by the Provincial Engineer that taking 100,000 gallons of water in each place the amount of hypochlorite of lime required in the Ottawa water would be 8 or 9 times that which is required in Toronto. It is thought by many men well competent to give an opinion that the Ottawa River water would taste and smell of chlorine so strongly that it would not be fit to drink. That for instance the proprietors of hotels, restaurants and many residences could not think of using it for drinking purposes.

It is only fair to state that mechanical filtration is being used with fairly satisfactory results on the River Thames, the River Elbe (Hamburg) Hudson River (Albany), the Delaware River, and several other rivers in Europe and America, but similar treatment would not be applicable to the Ottawa River because of the greater pollution and larger quantity of organic matter present.

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### THE THIRTY-ONE MILE LAKE SCHEME

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For some time many have contended that it would be better to secure water from the Gatineau Lakes north of Ottawa. The basin containing Lake MacGregor was at first selected and approved by the Provincial Board of Health. As the MacGregor Lake scheme is not now advocated by any one, we have only the Thirty-One Mile Lake scheme to consider. Without discussing the matter in detail we may make a few concise statements. The adoption of this scheme will insure a plentiful supply of water for 100 years or perhaps forever, because in addition to the present chain of lakes there is an adjacent water shed of what is known as the Big White Fish area with an immense supply, which could be used with very little expense if needed.

It is feared by some that the presence of algae in the waters is a source of danger. The algae group includes a variety of sea or water weeds which involve no danger to health. It happens, however, that the quantity of algae is so exceedingly small that it has no effect whatever on the water as regards discoloration. There is only an infinitesimal amount of

swamp water. The drainage area around the lakes is singularly free from peat or other matter likely to discolor the water. The shores of the lakes consist chiefly of solid rock which shelves rapidly into very deep water.

The scheme will give the City of Ottawa an abundant supply of clear, wholesome water, which has never been contaminated or polluted. It will never require chemical treatment, filtration or chlorination. We believe that when the plan is completed Ottawa will have the finest water supply in North America.

The opinions thus expressed respecting the different waters have been received from Sir Alex. Binney, the head of the greatest sanitary engineering firm in Great Britain; from Dr. Houson, Director of Water Examinations, Metropolitan Water Board, since 1905; Messrs. Meredith, Tickle, Bean and Legge, Sanitary Engineers, England; Mr. Dallyn, Sanitary Engineer for Ontario; Dr. John Amyot, Bacteriologist for Ontario; Dr. Race, Bacteriologist for the City of Ottawa; Dr. Hodgetts, Dr. J. W. S. McCullough and some other well known sanitary experts.

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### THE RED CROSS

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We appreciate the work of the Red Cross more now than ever before. We are told by Col. G. Sterling Ryerson in *Maclean's Magazine* (February) that the Red Cross work has helped to make the present war in some respects the most merciful ever waged. Military surgeons did some good work in the wars of Marlborough and Wellington, but the systematic



treatment of diseased and wounded soldiers was first instituted in the Crimean War by that wonderful woman, Florence Nightingale. Under her regime the trained nurse became prominent during war times.

A few years later, in 1859, a Swiss gentleman, Henri Dunant, was present as an onlooker at the great battle of Solferino in Northern Italy, between France and Italy on the one side and Austria on the other. He was so horrified over what he witnessed, that he resolved to devote his life to bringing about an improvement in Red Cross work. He visited all the Courts of Europe and expended many years, and his private fortune in an endeavor to arouse the world to united action. As a result of his efforts a conference was held at Geneva in October, 1863, at which there were present sixteen representatives of the powers of Europe. At another meeting, held in the same city, August 22, 1864, the representatives of the following nations signed a convention on behalf of their respective Governments, namely, France, Prussia, Spain, Portugal, Holland, Belgium, Italy, Switzerland, Greece, Denmark, Sweden and Norway, Baden, Wurtemberg and Hesse Darmstadt.

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### WHAT IS THE KAISER?

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People have been wondering recently what is the mental condition of the Kaiser? Many think that he is a victim of paranoia. If he is thus afflicted there is evidently a tremendous epidemic of paranoia in Prussia, which has seized the whole population.

A prominent journal published in Germany speaks as follows in its editorial columns: "What

need we fear for the squalling of neutrals or the indignation of our enemies. We Germans in this war must learn a lesson not to be squeamish regarding our methods: not to heed what neutrals may say." It is generally supposed that the Germans learned this lesson before the war.

Another journal, *The Kreuz Zeitung*, says: "We are filled with satisfaction by the announcement that our submarines are about to wage a merciless warfare. Our admiralty have given notice to neutral ships that we are starting a submarine war."

There is no doubt about the fact that the hatred of the German people, for all things English is so terrific in its intensity that it may justly be considered a form of insanity. The study of the whole psychological problem after the war is terminated will certainly be very interesting.

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#### THE BRITISH PHARMACOPOEIA, 1914

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The new British Pharmacopoeia of 1914 came into force in Great Britain on December 31st last. Several rather radical changes have been made, particularly in the strengths of preparations, while many new drugs have been added, and quite a number deleted.

We understand that it rests with the Ontario Medical Council as to when this Pharmacopoeia becomes official in Ontario. The Ontario Pharmacy Council have requested that no change be made until July 1st, 1916. In order that our readers may become familiar with the changes, we are reproducing on another page an article dealing with the matter from *The Prescriber* of December, 1914.

### ONTARIO MEDICAL ASSOCIATION

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Below we publish the Provisional Programme of the Annual Meeting of the Ontario Medical Association, which takes place in Peterborough. We understand that the programme has been completed. In our next issue we hope to publish more information as to those taking part, together with the titles of papers.

Tuesday May 25—Registration.

Wednesday, May 26—Morning—Registration.

Afternoon—General Session. Business Meeting.

Evening—General Session. President's Address. Address in Medicine.

Thursday, May 27—Morning—Sectional Meetings.

Afternoon—General Session. Business Meeting. Address in Surgery.

Evening—General Session. Symposium on Heart.

Friday, May 28—Morning—Sectional Meetings.

Afternoon—General Session. Business Meeting.

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### CANADIAN MEDICAL ASSOCIATION

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In spite of the unsettled political situation plans for the 48th Annual Meeting to be held in Vancouver, B.C., July 6, 7, 8 and 9, are maturing excellently. Two symposia, viz., Chronic Arthritis and Chronic Renal Infections, have been selected, and many prominent men in Canada and the United States have signified their intention of taking part. The Panama Exposition and the meeting of the American Medical Association the last of June in San Francisco will materially help our meeting. Rates and further information will be announced later.



## NEWS ITEMS

**Belgian Physicians' and Pharmacists' Relief Fund**

Manitoba Executive Committee, \$200; Dr. H. B. Anderson, \$50; Dr. J. B. Bullen, \$25; Druggists of Kingston, per Dr. W. T. Connell, \$50; Members of Kingston Med. Ass., per Dr. W. T. Connell, \$142; Manitoba Executive Committee, second remittance, \$300; Dr. F. A. Clarkson, \$10; Dr. F. R. Scott, \$5; Dr. J. S. Hart, \$25; Dr. R. A. Pyne, \$10; Dr. S. M. Hay, \$25; Dr. Geo. Gleonna, \$10; Dr. H. C. Tomlin, \$25; Dr. T. S. Webster, \$25; Dr. J. Ferguson, \$25; Dr. Thos. Kerr, \$10; Dr. R. W. Wesley, \$10; Dr. T. A. J. Duff, \$5; Dr. C. W. Brand, \$5; Dr. J. J. Thompson, \$5; Dr. W. W. Ogden, \$10; Dr. E. T. Hoidge, \$10; Dr. W. J. Wilson, \$2; Dr. W. E. Ogden, \$2; Dr. N. King Wilson, \$1; Dr. A. Primrose, \$25; Dr. Algernon Temple, \$20; Dr. Chas. P. Lusk, \$10; Dr. S. Cummings, \$10; Dr. G. B. Smith, \$10; Dr. F. Harrison, \$5; Dr. R. A. Stevenson, \$5; Dr. R. R. Hopkins, \$2; Dr. W. F. Fawns, \$5; Dr. N. H. Beemer, \$25; Dr. H. M. Tovell, \$5; Dr. A. D. McArthur, \$2; Dr. W. C. Heggie, \$5; Dr. J. S. McCullough, \$5; Dr. Stewart Wright, \$2; Dr. A. Wilson, \$2; Dr. James Beatty, \$5; Dr. F. C. Trebilcock, \$5; Dr. J. W. Smuck, \$2; Dr. T. J. Page, \$10; Drs. G. and H. Carveth, \$1; Dr. J. Norman, \$2; Dr. E. Clouse, \$1; Dr. A. A. McDonald, \$25; Dr. C. E. Stacey, \$1; Dr. Thos. Wylie, \$5; Dr. J. F. Goodchild, \$5; Dr. W. P. Caven, \$25; Dr. Chas. B. Johns, \$5; Dr. Gilbert Royce, \$10; Dr. Angus Campbell, \$5; Dr. Musgrave, \$10; Dr. A. Crichton, \$1; Dr. Jane Sproule, \$5; Dr. D. N. MacLennan, \$10; Dr. C. D. Parfitt, \$10; Dr. Campbell Meyers, \$10; Valley Medical Association of Nova Scotia, \$50; making the total to date, \$1,915.

## Personals

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Dr. Cameron Wilson, of London, is now attached to the British Red Cross in Northern France.

Dr. H. R. Casgrain, of Windsor, will have charge of one of the stationary hospitals in England or France.

Dr. Geo. H. Wilson, of London, has been made Medical Officer of the 7th Regiment, Canadian Mounted Rifles.

Dr. James S. Sprague, Belleville, Ont., was made recently an honorary member of Humboldt County, Iowa, Medical Society. The doctor is the only survivor of those who in 1870 founded this society, and was its second president.

Dr. H. L. Jackes, of Toronto, one of the medical officers of the Board of Education, is leaving to go to the front. Leave of absence has been given by the Chief Medical Officer, Dr. McKay, and it is expected the doctor will receive his full salary during his absence.

Any Physician who is willing to share, with other members of the Profession, a private house on College Street (specially adapted for several Doctors), within a block of Toronto General Hospital, can obtain full particulars by addressing the Editor of this Journal. The only reason that there is a vacancy is owing to more than one of the former members having joined the colors.

Sir Lambert Ormsby, of Dublin, the eminent surgeon who visited Toronto a few years ago, wrote Dr. Charles O'Reilly, of this city, in January. He said in part: "All here talk of nothing but the war—war! Canada has done well with the old Mother Country by sending so many of her brave and valiant sons to fight in this terrible struggle for freedom, and light, and the destruction of militarism, which if allowed to go on would ruin the whole world."

## Obituary

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### JAMES MIGHT, M.D.

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Dr. James Might of Port Hope died January 26th, aged 84 years.

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### HON. MICHAEL SULLIVAN, M.D.

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We have to announce with deep regret the death of Dr. Michael Sullivan, of Kingston, January 23rd, aged 79. He was not well known by the present generation, but thirty years ago he was one of the best known and one of the most popular physicians in Canada. He was well known among physicians in all parts of Canada, and especially took great interest in the Canadian Medical Association. He was prominent in politics for many years and was made a Senator in 1884. A little more than two years ago he became seriously ill, and as a consequence resigned from the Senate. In private life he was a most lovable man.

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### ROBERT ROY WILSON, M.B.

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We have to report with great grief and regret the sad death of one of Toronto's brightest young physicians, Dr. Roy Wilson, the only son of our dear friend, Dr. R. J. Wilson. He graduated M.B. from the University of Toronto in 1914. We understand his illness was somewhat extended and the cause of death was sarcoma.

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The profession of Toronto generally deeply sympathize with Dr. and Mrs. J. Milton Cotton because of the death of their son, aged 14, which occurred in the latter part of January.

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Mrs. Charles Murray, widow of Dr. Charles Murray, died at her late residence, Highlands Avenue, on February 5th. We are told that Dr. Murray's office desk will be given to the Academy of Medicine, Toronto.



## Book Reviews

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*Diseases of the Bronchi, Lungs and Pleura.* By FREDERICK T. LORD, M.D., Visiting Physician, Massachusetts General Hospital and Channing Home for Consumptives; Instructor in Clinical Medicine, Harvard Medical School. Octavo, 605 pages. Illustrated with 93 engravings and 3 colored plates. Cloth, \$5.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1915.

The subjects covered in this book are those which are most often before the practitioner of medicine, and a work which is concise and carefully written, fills a long-felt want. Dr. Lord from a long experience is able to bring enough of the personal element into his writing to make this volume specially interesting. The reader will find all information brought up-to-date, with full consideration of such subjects as artificial pneumothorax and the use of the bronchoscope.

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*Pasteur and After Pasteur.* By STEPHEN PAGET, F.R.C.S., Hon. Sec. Research Society, London. Adams and Charles Black. 1914.

Those who know something of Mr. Stephen Paget and his great work in connection with research and general character of his addresses and papers would only expect something good to come from him on such a subject as the Life and Work of Pasteur. Any one having such expectation will certainly not be disappointed. In addition to a portion devoted to Pasteur, the author has written a very interesting chapter on Lister and his work, and several interesting chapters on the work done by Pasteur's followers since his death. There are more than sixty Pasteur Institutes in the world, but the author is chiefly interested in the Pasteur Institute in Paris, which was opened in November, 1888. We are told this was the gift not of France alone but of many countries of Europe.

Some rather sad sentences follow: "He was a broken-hearted and tired old man, and it was sad to see how his hard work and the opposition he encountered had aged him. Still

he guided the work of the younger men at the Institute. June 13, 1895, he said good-bye to the Institute, and what now remains of his poor body lies in the beautiful Pasteur Chapel, situated just at the end of one of the long corridors of the Institute. It is well that he should lie close to the work of the Institute, close to the heart of Paris, with Faith, Hope, Love and Science, the four great white angels in the vault over his grave."

Altogether the book is one of the most useful and the most fascinating we have ever read. We wish it could be read by every man, woman and child in Canada, as it would be found interesting to all classes of people at all ages.

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### *Mothercraft.*

Sixteen lectures delivered under the auspices of the National Association for the Prevention of Infant Mortality at the Royal Society of Medicine and Charing Cross Hospital Medical School in October, November and December, 1914, are published under the above title by the National League for Physical Education and Improvement at Tavistock Square, London, England. These lectures are by the best authorities on the subject, such as Professor Amand Routh, Dr. Eric Pritchard, Mr. McLeod Yearsley and others. The range of subjects with which they deal is wide, from the health of the unborn babe—the feeding of infants, the prevention of disease, the prevention of ear and throat troubles, the prevention of dental caries—to the feeding of children under school age. The information here presented is not only of the greatest importance but deeply interesting.

The little volume is comprised in about 250 pages and we know of no other book on this subject so valuable as this. It is, of course, to those who, as health visitors or good citizens aim at high standards themselves, and at raising the national standards in regard to the care of the young, that this book is chiefly addressed, and to them it will be extremely welcome and useful.

## Selections

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### **Stomach Bitters**

The prescription of "bitters" of various sorts belongs to those inherited procedures in practical medicine that antedate the modern period of scientific criticism and therapeutic skepticism. Why they are ordered, or what they really accomplish for the person who takes them, has usually either been answered in only the vaguest terms, or overlooked entirely by teachers of therapeutics. As a rule, these "bitters" are believed to stimulate the appetite. Bitters have even been grouped into classes, such as "pure bitters," of which calumba is an example; astringent bitters, to which the decoction of cinchona belongs, and aromatic bitters, including cascarilla or orange. Persons who eat too much and exercise too little were at one time wont to take "sherry and bitters" before dinner "to stimulate the appetite."

So far as the reputed action of bitters is subjective, producing an impression due to suggestion on the individual rather than to any real pharmacologic action of the drugs involved, it is not easy to test the hypothesis of their efficiency in a convincing experimental way. Carlson and his collaborators at the University of Chicago have lately pointed out that the generally accepted assumption of an increased appetite and hunger produced by bitters might result in a variety of ways. The stomachics may directly inaugurate or augment hunger contractions of the empty stomach, or hasten the reappearance of gastric hunger contractions by facilitating secretion and peristalsis, and final emptying of the stomach. They may augment the appetite directly by stimulation of gustatory and other sensory nerves of the mouth, oesophagus, or stomach. Finally, the bitters might even be conceived to facilitate the impulses from the mouth so as to bring feeble hunger and appetite sensations more prominently into consciousness.

Appetite and hunger are by no means identical sensations. The relation of bitters to the sensation of hunger is amenable to experimental investigation in view of the now established facts in relation to the genesis of the latter. The hunger sensation is evidently produced by certain types of contraction of



the empty stomach. These can be recorded accurately. Hunger pangs are absent so long as the empty stomach is relatively atonic and quiescent.

The Chicago investigators have now studied the effect of such bitters as the tinctures of gentian, quassia, calumba, humulus, condurango, and the elixir of quinine, strychnine, and iron on the hunger sensation in man and animals. The influence of the bitters in the mouth and in the stomach was tested separately. When they are introduced, in therapeutic quantities, directly into the stomach so as not to come into contact with the mouth or œsophagus, these drugs have no direct action whatever on the hunger mechanism. When quantities sufficiently large to produce a demonstrable effect are introduced in this fashion, the action is always in the direction of inhibition. Introduced into the mouth, the action of stomachics and bitters is like that of all sapid substances. They stimulate the taste organs and nerves of general sensation in the mouth, and cause reflex inhibition of the gastric hunger contractions. It will thus be seen that the bitters have no effect whatever in the way of augmenting hunger contractions and the attendant sensations.

It is conceivable that aside from the possibilities already described, the "bitter tonics" are capable of exerting a favorable action on the secretion of the gastric juice, and thereby promoting the progress of digestion in the stomach. This question likewise has been put to the direct test of experiment by Carlson and his collaborators. From the facts reported the bitters have shown nothing to commend them from the standpoint of increasing digestive efficiency. Whether introduced into the mouth or directly into the stomach, they produced no changes in the acidity or in the pepsin concentration of gastric juice collected either in man or in animals.

This does not exhaust all the possibilities of explanation for the alleged value of these stomachics, especially in digestive disorders. Nevertheless it seems settled that neither the hunger sensation nor the gastric secretory mechanism is affected in the way that many have been led to suppose. The experiments of Carlson were done on normal individuals, whereas bitters are usually prescribed in anorexia arising in relation to alimentary disorders. To postulate some different response in the pathologic as contrasted with the normal individual is a favorite attitude in support of inexplicable therapeutic claims. The possibility must, of course, be admitted; but if direct tests are

made on suitable subjects of disordered digestion, we venture to predict, with Carlson and his co-workers, that the results will be the same as those reported on normal men.

These new investigations on the possible functions of stomachics and tonic bitters serve to dispel another of the long-established beliefs in the potency of certain popular remedies. As Carlson has well said, even if the therapeutic doses of such tonics are harmless, their use contributes to the drug habit which emphasizes the desire to "take something" instead of "do something." The patient may perhaps be deluded into the belief of "being done good," and may exhibit the benefit of psychologic medicine. After all, the really efficient agencies for improvement in alimentary and nutritive disorders are in most instances not to be found in suggestion or stimulation, but in a well-ordered regimen of work, rest, and diet.—*A.J.M.A.*

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### On "Flushing Out the System"

Thanks perhaps in part to the efforts of those who advertise the virtues of various patent medicines, the general public is firmly convinced of the advantages to be gained by "flushing out the system" with copious draughts of water. Whether taken hot or cold, before meals or after, on rising in the morning or on going to bed at night, water consumed in large quantities, is believed to wash out of the tissues the alleged poison fondly termed "uric acid" by the public, and so to avert the onset of a whole host of complaints and deathly diseases. A most attractive hypothesis! What is more, it has a firmer scientific and experimental basis to rest upon than is possessed by many of the popular medical fancies. Thus it is a fact that the increased input of water produces an increase in the nitrogenous substances contained in the urine, if, as naturally happens, the amount of urine excreted is augmented. It is also a fact that the various authorities who busied themselves with the question during the last two decades of the nineteenth century were in substantial agreement with the view that the nitrogenous extractives thus appearing in the urine were mechanically washed out of the body by the excess of water consumed. The eminent physiologist Voit, indeed, in 1860, brought forward evidence to show that excessive water-drinking actually increased the consumption of protein in the body. But this view has not

been confirmed by the work of the majority of later investigators, and may also be said to have been given up altogether. In fact, Magnus-Levy, writing in 1905, argued that the elimination or retention of the nitrogenous extractives in the animal body entirely accounted for the increase in the nitrogen of the urine caused by large draughts of water, and the subsequent diminution, below the normal, of the urinary nitrogen when the return to a normal consumption of fluid was made. He mentioned 6 grams as the maximum amount of this "excess of extractives loosely retained in the system" that were liable to be "flushed out" by excessive water-drinking. As for the physiological action of these extractives, the end-products of nitrogenous metabolism, he sounded a note of warning. They should not, he said, be regarded as valueless decomposition products destined only for excretion. The tissues hold on to them very firmly, and he believed that, with but few exceptions, they must have definite functions to perform in the economy of the body.

Quite recently the whole matter has been subjected to renewed examination by Orr, who has improved upon the methods of urinary analysis employed by some of his predecessors, and has also introduced an interesting and instructive variation by the employment of different diets in his different series of experiments. Some of these were made on a low protein diet containing only 27 or 48 grams of protein a day; others on a moderately high (110 or 160 grams) and yet others on a very high protein diet (319 grams). In each case fat and carbohydrate were adequately represented in the daily allowance of food, which contained no meat. Orr comes to the unexpected conclusion that the smaller the amount of protein in the diet, the greater is the amount of the nitrogenous extractives washed out of the system by extra draughts of water—from 9 to 16 pints a day. He argues, with apparent justice, that if the matter were merely one of washing end-products out of the system, the reverse of this might be expected to occur, for the quantity of nitrogenous end-products must be greater on a diet rich in protein than on a diet low in protein. Whatever the amount of protein in the daily food he found a marked increase in the urinary excretion of ammonium salts, as if they, at any rate, were merely being washed out of the system by the excessive input of water. At the same time the percentage of nitrogen excreted as urea was always increased, and he argued that this fact pointed to the conclusion that the excess of water had a



definite influence on the metabolism of the proteins in the food. He has confirmed this conclusion by discovering that the amount of nitrogen excreted in the faeces was lessened by copious draughts of water, as if the protein in the food were utilized more completely. Finally, turning to the increased retention of nitrogen that followed the days during which the system had been "flushed out" by excessive drinking of water, he found that it took place even on the diet highest in protein, when there would be a surplus of absorbed protein circulating in the economy. This fact suggests that the retention represents an increase in the protein of the tissues, as if excessive water-drinking promoted the building up of the body as well as its "flushing out."

Thus the general conclusion to which Orr's work leads is that the increased consumption of water accelerates both the breaking down and the building up of protein in the body, quickening both its catabolism and its anabolism. It appears that the temperature of the body tends to be raised a fraction of a degree on the days when much water is drunk, as compared with the days when only a normal quantity of fluid is consumed. It is said that the breeders of domestic animals find that nutrition is impaired if much water is drunk, but it is not known whether the putting on of flesh or of fat suffers.

As to the nature of the nitrogenous extractives "flushed out" of the body, Orr has little that is new to say, excepting that he failed to find any creatin among them. But his research is of great interest because it appears to establish an unexpected fact, to wit, that copious draughts of water promote the building up of protein in the tissues of the body. Many people drink quantities of water to make or keep themselves thin, as they suppose, although it must be confessed that not a few of the laity hold the opposite view, and discard water from their dietary as being too fattening. Should Orr's experiments and conclusions represent a general principle, it would appear that the latter view is not without its grain of truth.

It has, indeed, long been developed or improved upon empirically by many stout persons seeking to recover their lost figures. Water, they say, if drunk at meal times is fattening, in contradistinction to water drunk between meals, which is thinning, and, therefore, they themselves drink between meals only. This simple plan for keeping down the weight meets with a wide popular application; it probably owes much if not all of its efficacy to the difficulty most people have in eating a

full meal dry, without anything liquid to wash it down. Appetite flags when thirst is felt, so that even the spiciest and most succulent dishes no longer prove tempting. The result is that the big eater who knocks off fluid at meals is likely to punish his victuals less, with corresponding gain to the symmetry of his figure.—*Edit. B. M. J.*

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### Studies in Caffeine

Fifteen patients suffering from advanced myocardial diseases were selected by Taylor for this study. Every case showed some sign of broken compensation at the time of the experiment, and thirteen gave evidence of retained body fluid. Dyspnoea was present in 14 cases; œdema of the extremities in 13 cases; ascites in 10 cases; hydropericardium and hydrothorax, single or double, in 6; tender pulsating liver in 6. Other common symptoms were cough, frontal headache, weakness, dizziness and sub-sternal pain. All patients were kept in bed on a constant diet. Of the 15 cases the results were excellent in 8, moderate in 4, and there was no result in 3. In one of the cases in which there was no result, the vomiting and loss of sleep even on small doses more than balanced any possible good that the drug could have done. All the cases with limited results showed the nervous signs, so the absorption of the drug was assured.

In five of these cases a second admission to the hospital or a return of symptoms while they were still in the institution made it possible to try the comparative therapy of theobromine sodium salicylate under the same conditions and on the same heart on which the caffeine action had been tested. Its action on the urinary outflow is more prompt than that of caffeine and the diuresis is larger. The theobromine sodium salicylate action is equally well sustained and usually at a higher level than the caffeine. When caffeine has a depressing effect on the vasomotor system and lowers the blood-pressure, theobromine sodium salicylate first elevates the pressure and then later lowers it.

Eighty grains a day is a normal clinical dose. Patients will tolerate this dose easily. Not only is the theobromine sodium salicylate action prompter, much stronger and equally well sustained, but it exhibits none of the gastric and nerve disturbances attendant on caffeine. In cases with œdema, the diuretic effect of caffeine may be taken safely as a sign of an improved mass movement of blood, which is the result desired. From this point

of view it is evident that small doses are not adequate. The best results are obtained with full doses.

Therefore, Taylor concludes that in myocardial insufficiency with retained body fluid, caffeine causes a moderate increase in the urine output with a proportional loss of body weight. This increase reaches its maximum on the fourth day; a drop in both the systolic and diastolic blood-pressures which may stand in a causal relation to the diuretic coefficient, contrary to the usual teaching; a slight (3.6 per cent.) temporary rise in the pulse-rate, but no permanent change in either the pulse or respiratory rate; a moderate relief of the cardiac symptoms; the constant appearance of distressing nervous and gastric symptoms. The clinical diuretic action of caffeine may be better performed by large doses of theobromine sodium salicylate without the unpleasant side effects.—*J.A.M.A. from Archives of Internal Medicine.*

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### Gastric Ulcer and Carcinoma

Of 399 cases of gastric cancer from which the tissue containing the primary lesion was resected in the Mayo clinic, 4.8 per cent. showed ulcer with doubtful cancer in the border, 15.8 per cent. showed ulcer with positive early cancer in the borders only of the lesion, 36.8 per cent. showed ulcers with advanced cancer, while 42.6 per cent. of the cases showed cancer in which the previous ulcer formation is doubtful. Of 46 cases of gastric cancer from which the tissue containing the primary lesion was obtained at necropsy, 1 case (2.2 per cent.) showed an ulcer with doubtful cancer, 7 cases (15 per cent.) showed ulcer with advanced cancer while in 38 cases (82 per cent.) the evidence of ulcer previous to cancer formation is doubtful.

The clinical and pathologic data in relation to the development of gastric cancer or gastric ulcer are in close agreement: (a) with regard to the average age at operation; (b) with regard to the average period of previous history suggestive of ulcer, and (c) with regard to the average number of months of acute history. To Wilson and McDowell it seems probable, from a careful study of the clinical and pathologic evidence of this series of cases, that gastric cancer rarely develops except at the site of a previous ulcerative lesion of the mucosa.—*J.A.M.A. from Am. Jour. Med. Sciences.*



### Diastolic and Pulse-Pressure

Of forty-nine cases of myocardial insufficiency at all ages observed by Warfield the average pulse-pressure was 40 mm. The highest was 70, the lowest 15 mm. He has seen cases of myocardial disease with normal blood-pressure figures, five minutes before death. In seventy-five cases of chronic nephritis the average pulse-pressure was 62 mm. The ages of the patients ranged from 10 to 82 years. The highest pulse-pressure, 130 mm., occurred in a man aged 55 years. A child, aged 10 years, had at one period of her stay in the hospital systolic 186, diastolic 154, pulse-pressure 32. She left the hospital improved and with 130, 80, 50 as her pressure. The most consistent low pulse-pressures were in the advanced cases of pulmonary tuberculosis. Also in typhoid during the third, fourth and fifth weeks, when the fever lasts that length of time, the whole pressure picture is reduced, but the pulse-pressure is reduced relatively more than diastolic pressure.

Warfield has taken for low pulse-pressure any below 30, for high any above 50. The pulse-pressure in aortic insufficiency is always large; in fact, it is usually the largest in any disease. In chronic nephritis the pulse-pressure is always high in the compensation stages. In some forms of arteriosclerosis the pulse-pressure is high. In myocardial insufficiency it varies. If the heart is large there is increased pulse-pressure, if the heart is small there is decreased or normal pulse-pressure. In pulmonary tuberculosis the pulse-pressure is low in the advanced cases. In the early cases the blood-pressure picture, as a rule, is normal or generally decreased. If the heart is large naturally the blood-pressure picture takes on more the form of that in cases of enlarged heart with general depression of the blood-pressure picture. In the acute fevers the pressure picture in the initial stages shows no particular changes. As the cases develop the whole pressure picture as a rule shows a general depression and a low pulse-pressure usually means a badly diseased heart and is an unfavorable prognostic sign.

In general when the systolic pressure is normal, increased pulse-pressure signifies peripheral dilatation. When the systolic pressure is high the increased pulse-pressure is to be regarded as normal and has no special significance. Decreased pulse-pressure or even normal pulse-pressure means marked peripheral constriction, and is therefore, an unfavorable prognostic sign. With low systolic pressure increased pulse-pressure occurs in

practically only one condition, aortic insufficiency. With normal systolic pressure gradually decreasing pulse-pressure usually means cardiac failure. The condition is seen often in the later stages of the high systolic increased pulse-pressure cases. With low systolic pressure increased pulse-pressure usually means general cardiac weakness, as seen in febrile conditions or in convalescence from long illnesses or in cachexia of malignant disease.—*J.A.M.A. from Am. Jour. Med. Sciences.*

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### **"Twilight Sleep"**

"Twilight Sleep" has now been tried on many hundred cases and we ought to be able to sum up its advantages and disadvantages. Nevertheless, equally able experts have expressed such irreconcilable conclusions from their own experiences, that the vast majority of the profession seem to be withholding judgment. Scopolamine is undoubtedly an uncertain and dangerous drug and some people have an exaggerated susceptibility to doses having little or no effect on others. The treatment therefore cannot be standardized. Each case is a law to itself, requiring the doctor to be present or within instant reach during the whole course of the labor. This largely prohibits the method in the home, for no physician would dare to neglect other patients who have depended on him and who would be seriously depressed if turned over at the last moment to an assistant or an utter stranger. No woman could rely on the doctor she engaged unless she had arranged to go to the hospital, and but a small percentage can afford that. There have been accidents charged to improper methods and dosages, but we have reason to believe that serious results have followed a strict compliance with the published technic. Berlin is said to hate Freiburg and for that reason condemns "Twilight sleep," but this imputes a lack of honor to Prussian physicians that we are very loath to believe. To be sure, we do know that a few German doctors of high standing have, for a consideration, given testimonials to certain proprietary articles but have stipulated that the letters must not be used in Germany. It is well known that Kronig and Gauss were greatly opposed to the publication in the lay press of the article which first directed popular attention to their work, but we now hear them likened to the lady who "saying she ne'er would consent, consented." As a fact there was no objection to this publication, as it was news, and big news too.

Nearly all of us get our first knowledge of important medical discoveries from the lay press, because no doctor can possibly keep in touch with every medical field. The only result will be a quicker determination of the exact field of usefulness of this new form of anæsthesia, or semi-anæsthesia as, perhaps, it may be more properly described.

The objections to "Twilight sleep" seem to be creating an opinion that it does not possess sufficient advantages over the accepted way of administering chloroform, to warrant the risk of nervous damage to the mother, asphyxiation of the child, prolongation of labor and severe hæmorrhage. The main objection seems to be the impossibility of stopping the action of the drug should it act badly. Chloroform is administered in such small amounts that its action is evanescent. We do not yet know why the uterine contractions should be accompanied by pain. Not a few capable men are convinced that labor pains serve a physiological end. Some of our best obstetricians refuse to ease up the suffering unless it is evidently pathological. Hysterical and nervous women give an exaggerated idea of their agony, while normal women quite generally say that their suffering was nothing to what they had been led to expect. Except in the diseased, the pains have no discoverable bad result. When they cease, the woman seems to be in a perfectly normal state. If we could be sure they serve no purpose, we would try to stop them in every case but unfortunately we have no drug which will do this without incidentally weakening the muscular contractions and prolonging labor—sometimes fatally, not to mention the hæmorrhages from a relaxed uterus. The profession has been so shocked by the quackery of a few European health resorts that it accepts new things from abroad with considerable reservation. We must investigate for ourselves. The slowness to take up "Twilight sleep" gave rise to denunciation of our proverbial opposition to the new, but in this case at least it was our only course. The only thing settled seems to be that it is more useful in first labors in hospitals. Normal multiparæ whose previous labors have been short will probably go on having babies the way they have done for a million years or so—a way which has survived as the fittest in spite of its suffering which strange to say some of them forget afterwards almost as completely as after scopolamine. In the meantime it is desirable that competent men continue to study this method critically, in order to determine its real value in the management of labor, its proper technique, the drugs to use, its contra-



indications, and finally the best means of controlling or counter-acting any untoward effect that may arise in the course of its administration; in other words, to establish its limitations no less definitely than its indications and effects.—*American Medicine*.

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### **Influence of Internal Secretions on the Teeth and Hair**

A. Josefson (*Hygiea*) considers that anomalies of the teeth and hair may be the first sign of faulty internal secretion of one or more glands. As such faults are now amenable to treatment, the signs which first reveal them are important. In support of his hypothesis the author records several cases, illustrated by many photographs, which have recently been under his treatment. One patient was a lad, born in 1899, who was first examined when 11 years old. He had suffered from rickets, and was 18 months old when the first tooth, a lower incisor, appeared. At the age of 11 he had only one permanent tooth, an upper incisor, all the other teeth belonging to the first dentition. The hair was colorless, silky, scanty, and thin; it was distributed over the scalp in tufts, pointing in every direction. He was 140 cm. long, of a fragile build, thin, and with poorly developed muscles. The lower limbs were knock-kneed and very long in proportion to the rest of the body. The scrotum and penis were unusually small, and the testicles were smaller than beans. Wassermann's reaction was negative. The size of the thyroid gland seemed normal. Thyroid tablets were prescribed, but their continuous administration was prevented owing to the emaciation they induced when pushed. This treatment was soon followed by the appearance of one permanent tooth after another; and early in 1912 the upper jaw contained one lateral incisor, one premolar, and two molars on both sides, as well as one canine on the left side. The lower jaw contained one lateral incisor, one premolar, and one molar on both sides, as well as a second molar on the left side. Thus there were altogether sixteen permanent teeth. The hair was longer and thicker than before, and had become pigmented. The penis and testicles were of a normal size. The thyroid tablets were given at irregular intervals till August, 1913, when nineteen permanent teeth had appeared, and the patient's height was 165.9 cm. Two other children, belonging to the same family, presented many similar features, and also responded satisfactorily to treatment with thyroid tab-

# Food Values

Wheat and barley supply a very great proportion of the food elements necessary for the human body.

The only resistant factor to be considered in the digestive process is the starch element which they contain.

Starch in most foods causes the greatest amount of digestive disturbance, particularly where there is a tendency to, or an existence of, impaired digestive function.

It is self-evident that a convalescent, an anemic, or any under-nourished individual cannot exert sufficient digestive energy to vitalize ordinary food.

Given a cereal food in which the starch elements have been converted, in the manufacture, into dextrin and maltose, you have an ideal food—easily digestible and quickly assimilable.

Such an ideal cereal food is

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lets. They suffered from umbilical hernia, which is often associated with a faulty internal secretion. After giving details of several other cases, the author reviews the experimental and clinical observations recently made on the relation of the internal secretions to the development of the teeth and hair. These observations indicate that over-activity of such glands as the testicles may hasten the development of the teeth and hair, while inactivity of the same glands may delay the development of the teeth and hair. The thyroid, the pituitary body, the thymus, the reproductive organs, and the suprarenal bodies all play a part in the development of the teeth and hair, and it is therefore, difficult in any given case of faulty development of these structures to ascertain which of these glands is to blame. Tentative treatment with extracts of these glands may decide this point.—*B. M. J.*

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**Albuminuria Without Nephritis** (*Gazzetta degli Ospedali e delle Cliniche, Milan.*)

Barlocco cites numerous authors who ascribe to vasomotor action albuminuria of nervous origin. The vasodilating action of the toxins of the tubercle bacilli is also responsible for the albuminuria noted in what has been called the "pretuberculous stage." Improved methods of investigation have revealed that this in reality is early latent tuberculosis. The albuminuria is intermittent, and generally returns in regular cycles. There is not much albumin and it is found only in the morning. The urine is highly toxic and the salt content is large, especially of phosphates. Teissier has noticed in such cases that when the albuminuria grows less pronounced without improvement in the general health, some tuberculous focus will be found installed in the lungs. On the other hand, some slight and possibly transient weakness on the part of the heart may entail albuminuria. This possibility should always be borne in mind in examining cases of supposed incipient nephritis or so-called idiopathic albuminuria especially in the laboring classes. The albuminuria may be of the orthostatic or nervous type or of the physiologic type following severe exercise. Analysis of the cases of so-called idiopathic albuminuria on record generally reveals something abnormal in the circulatory apparatus. Martius found the heart inclined to be weak and to stretch in 57 per cent. of his cases of orthostatic albuminuria. Lommel found what he calls growth disturbances in the heart in thirty-five of ninety cases.—*J.A.M.A.*



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## Miscellaneous

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### The Phylacogen Treatment of Pneumonia

As every physician of experience knows, the mortality in pneumonia is very high as compared to that of the average infectious disease. The dream of scientific men that a specific for pneumonia would some day materialize has not yet become a fact, and it is probable that it will not for a long time to come. In the opinion of many advanced members of the profession Pneumonia Phylacogen, while not a specific, is the nearest approach to such an agent. Certainly some remarkable results have followed the use of this product in many serious cases that have been reported in recent months—cases in some instances that had failed to respond to conventional methods of treatment. Physicians owe it to their pneumonia patients to inform themselves with respect to the merits and accomplishments of Pneumonia Phylacogen. Ample literature on the subject is available. It will be cheerfully sent to any practitioner who will address a request for it to Parke, Davis & Co., the manufacturers of Phylacogens, with laboratory at Walkerville, Ont.

---

### Test for Sugar in Urine

A reagent containing copper acetate 5.0 gm., in basic lead acetate solution 100 gm., is said to furnish a very delicate test for sugar in urine, as little as 0.08 per cent. being revealed. The reagent is first boiled in a test tube and the urine carefully poured down on the surface. A reddish-yellow ring appears at the contact zone.—*The Prescriber*.

---

### The Recovery from La Grippe

Since the first appearance upon our shores of that unwelcome infectious disease known as La Grippe, the medical journals have been filled with articles advocating different methods of treating the attack itself and its various complications. But little attention, however, has been paid to the important question of how to best treat the convalescent subject. Among all of the

# Bronchial Affections; Catarrhal Troubles— Ear, Nose, Throat, Etc.

are always aggravated or increased during the "breaking up" season, following the Winter months.



**Directions:**— Always heat in the original container by placing in hot water.

Needless exposure to the air, impairs its osmotic properties—on which its therapeutic action largely depends.

applied thick and hot over the throat and upper chest not only gives almost **instantaneous** comfort to patient, but begins **promptly** to reduce and relieve the inflammatory process, in the larynx and bronchi.

In acute coryza, with pain in frontal and nasal regions, sneezing, increasing obstruction of nares, inflamed mucous membranes—Antiphlogistine, applied over frontal sinus and naso-malar regions, and held in place with a light bandage, affords quick relief.

Antiphlogistine has been used for more than a decade, by a noted New York physician (who specializes in ear, nose and throat) in **aborting** mastoid abscess.

Being non-toxic, Antiphlogistine can do no possible harm when placed in contact with mucous membranes anywhere.

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acute infections there is probably none that is as likely to leave the patient quite as thoroughly devitalized and generally prostrated, as does a sharp attack of La Grippe. For some reason the degree of prostration from grippal infection appears to be entirely out of proportion to the severity of the attack itself. This peculiarity renders it advisable and usually necessary to strengthen and support the general vitality of the patient during the period of convalescence. Complete rest, nourishing food, plenty of fresh air and stimulation according to indications are, of course, distinctly important measures. At the same time tonic and hæmatinic medication should not be neglected. Probably the most generally acceptable and efficient general tonic and hæmic reconstituent for such patients is Pepto-Mangan (Gude), a bland, non-irritant and promptly absorbable combination of the organic peptonates of iron and manganese. This efficient blood-builder and reconstructive does not disturb digestion nor induce constipation, and is readily taken by patients of all ages.

---

### **Glyco-Thymoline in Tonsilitis**

A local remedy must fill two requirements. It must be a detergent antiseptic and produce a degree of permanency of effect.

Glyco-Thymoline as a gargle, or used in an atomizer, produces excellent results. It rapidly relieves the dry congested condition of the mucous membrane by its exosmotic action and its anodyne effect is immediate and lasting.

Glyco-Thymoline is harmless, and if any is swallowed will produce a beneficial effect by breaking up any mucous plugs that have gained access to the stomach.

---

### **Value of the Russo Reaction**

Numerous reports on the Russo reaction as a diagnostic of typhoid fever have appeared, most of them unfavorable. The reaction, which has already been described in these pages, consists of the addition of a solution of methylene blue to the urine: a positive reaction consists in the change of color from peacock blue to emerald green. It has been shown, however, that variations in the color of the urine itself will alter the tint of the mixture, while morbid processes other than typhoid infection will also develop a green color. The reaction, therefore, cannot be regarded as specific.—*The Prescriber*.

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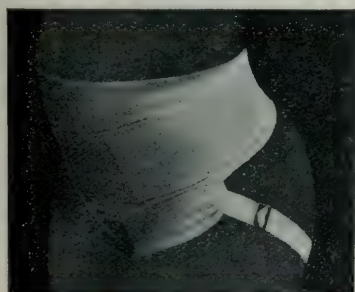
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### Detection of Salvarsan in Urine

Add three or four drops of diluted hydrochloric acid to 5 or 6 c.c. of the urine to be tested; mix, and add sodium nitrite solution (0.5 per cent.) in slight excess. Mix 3 c.c. of a solution of pure resorcinol (10 per cent.) with 2 c.c. of a solution of sodium carbonate (20 per cent.), and add to this the prepared urine. If salvarsan (arsenobenzol) is present a red color will be produced. The test will, it is said, detect one part of salvarsan in 100,000 of urine.—*The Prescriber*.

---

### Tetanus Treated by Injections of Carbolic Acid. BY PURVES STEWART AND J. T. C. LAING.

The patient, a soldier aged twenty-seven years, received several shell wounds, one on the hand having apparently been infected with tetanus bacilli. Seven days after receiving the wounds, he had symptoms of tetanus with rigidity of the muscles of the jaw. Fifteen hundred units of antitoxin were given at once by subcutaneous injection, but the symptoms advanced and the rigidity involved the abdominal muscles and those of the spine. An intraspinal injection of a second 1,500 units of antitoxin was given the next day, and the day after, the dose was repeated subcutaneously, but the symptoms still progressed. Full doses of bromide and chloral were administered in addition to the antitoxin. With the patient in this condition on the tenth day after infection and the fourth after the appearance of symptoms, injections of carbolic acid were begun. Two c.c. of a five per cent. solution were injected subcutaneously every two hours. Some improvement began to be noticeable on the first day of these injections, the tetanic spasms declining in frequency and the rigidity of the muscles of the jaws and spine subsiding. The injections were reduced on the next day to once every four hours, but they were given again every two hours for the two following days on account of a slight return of increasing rigidity and tetanus. From then on recovery was uninterrupted, and the patient was discharged well a month after the injections were started. Five days after the beginning of the carbolic injections, a diffuse, punctate red rash appeared, due to carbolic acid, but at no time was there any sign in the urine of poisoning by the drug. Sta-





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tistics are cited showing the mortality of developed cases treated with antitoxin to be nearly seventy-nine per cent., and these are compared with Baccelli's mortality of a little over seventeen per cent. in cases treated with injections of carbolic acid. — *British Medical Journal*.

### Fornalini's Artificial Pneumothorax

(*Boston Medical and Surgical Journal*.) The avoidable accidents are: 1. Hemorrhage due to puncture of the lung. Such a puncture is likely to happen in the first attempts, especially if the pleura is adherent. 2. Subcutaneous emphysema, caused usually by a large wound from a large needle, injection of nitrogen at a high pressure, lack of tensility of the tissues, excessive thinness of the patient, and a paroxysm of coughing following an injection. This does not ordinarily cause any pain or serious disturbance. 3. Pneumothorax from puncture and rupture of the lung. This accident is serious, but not likely to happen unless the needle is moved laterally while in the lung tissue. 4. Deep or mediastinal emphysema, which is produced when the nitrogen is injected in large amounts into the lung, and is dangerous. 5. Pleural reflex. The writer doubts if this will occur if a preliminary subcutaneous injection of morphine is given, or if local anesthesia is produced by an injection of novocaine and adrenaline. 6. Shock from increased toxemia and acute dilatation of the heart. Under this heading is described a very septic, hopeless case in which death was hastened by an insufflation of 200 c.c. of nitrogen into the left pleural cavity. 7. Gas embolism ought to be absolutely avoided. No gas should ever be introduced unless the characteristic respiratory pleural oscillations are obtained, for it is only then that the operator can feel sure that he has entered the pleural cavity. 8. Infection of the pleura from without ought to be excluded by a scrupulous technic. 9. It is of great importance to recognize the development of a serous pleural effusion, which may occur at any time after the induction of the artificial pneumothorax when the lung is wholly or only partially collapsed. The author considers these effusions to be unfavorable complications and the presence of a large number of tubercle bacilli in the pleural cavity increases the absorption of toxins. Nevertheless he thinks that they should be interfered with as little as possible, unless

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they become too large or show unfavorable symptoms, such as continued pyrexia, marked distress, and disturbance of the adjacent organs, or change from serous to purulent character. The danger of infection becomes greater at secondary injections, as the fluid is an excellent culture medium. 10. A serous effusion may be made purulent by the introduction of pathogenic germs through faulty technic, and also by some intercurrent infection, appearing as a sequel of a tonsillitis, of rupture of an adhesion on the visceral side, or following a perforation of the lung. 11. Pain due to separation of the pleural surfaces and the stretching of adhesions. 12. At first most patients lose weight, often considerably. This the author accounts for by the fever and the reaction following an injection. The results are given of seventy cases, most of which were treated at home. He strongly advises using the treatment in the office. The results as given do not seem to be so very favorable, but in judging them it must be remembered that the majority of the patients were in the third stage of pulmonary tuberculosis, and that many of them were accepted for treatment simply to see how much could be done for the relief of symptoms in this way, realizing at the start that they were beyond hope on account of the extent of the disease in the better lung.—*N. Y. Medical Journal*.

# The Canadian Practitioner and Review

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TORONTO, APRIL, 1915.

No. 4

## Original Communications

### CASE REPORTS OF BROMIDE ERUPTIONS

D. KING SMITH, M.B.,

In charge of the Outpatient Department for Diseases of the Skin,  
Toronto General Hospital.

Cutaneous lesions due to the bromides are exceedingly common. Probably very few who take bromides, over any length of time, escape some lesions of the skin. The commonest manifestation is a few papulo-pustular lesions closely resembling acne. Next in frequency comes the ecthymatous-like and furuncular eruptions. The rarer and severer types may very closely simulate a tertiary syphilide, blastomycosis, or even tuberculosis verrucosa cutis.

The following two cases, which have come under my notice during the past year, illustrate the rarer types:

CASE I.—Mr. C. W., age 28. Has suffered from epilepsy for several years. Two years ago began to take some "fit-cure." He continued to take this for about a year; then he consulted a physician, who prescribed bromides. Six months after beginning the bromides noticed a small papule on left leg, which gradually increased in size, until it looked like an ordinary boil. Shortly after a similar lesion appeared on calf of right leg. The lesions continued to increase in number on both legs until patches as represented in accompanying plate resulted. (Plate I)

Present condition: Left leg presents a patch about six inches long extending half way around the leg, with a somewhat seriginous outline. The outer border is elevated and covered with dark crusts. On removal of the crusts there is a granular bleeding surface, presenting numerous minute abscesses.

The zone surrounding the patch is inflamed and slightly infiltrated. The centre of the patch is of a peculiar slate color

with here and there well marked fissures. Throughout patch there is only slight evidence of scar formation. The left leg has two very similar lesions, but not quite so extensive as that of right.

Wassermann reaction was negative. Microscopic examination did not reveal any fungus. Bacteriological examination showed ordinary staphylococci.

The bromides were discontinued, and when patient left hospital two months later the lesions had almost completely disappeared.

CASE II.—F. H., age 14 years. Has never had any well-marked fits, but was advised to take a "fit-cure." Began taking the medicine, which contains about twenty grains of potassium bromide to the dose, fourteen months ago. Ten months after noticed a pustule on left leg; very soon several more developed. In a short time the condition resembled very closely a carbuncle. The leg became inflamed and painful. In four months the patch reached the size as shown in plate.

Present condition: Left leg presents a patch extending from ankle to middle of calf. It completely encircles the leg. The entire patch consists of heaped-up granulations covered by black crusts. The outer border is very congested, presenting numerous pustules, some distinctly furuncular. There is a diffuse purulent exudate.

The area surrounding the patch is acutely inflamed, showing many pustules and numerous small abscess cavities.

Wassermann reaction was negative. No fungus, on microscopic examination, could be demonstrated.

Patient was given small doses of liquor arsenicalis and a mild antiseptic dressing was applied locally. Two months after the patch had practically disappeared.

In both of these cases the bromides were not suspected. The first case had been under treatment for a severe ringworm, while in the second no positive diagnosis had been made.

22 Wellesley Street, Toronto.



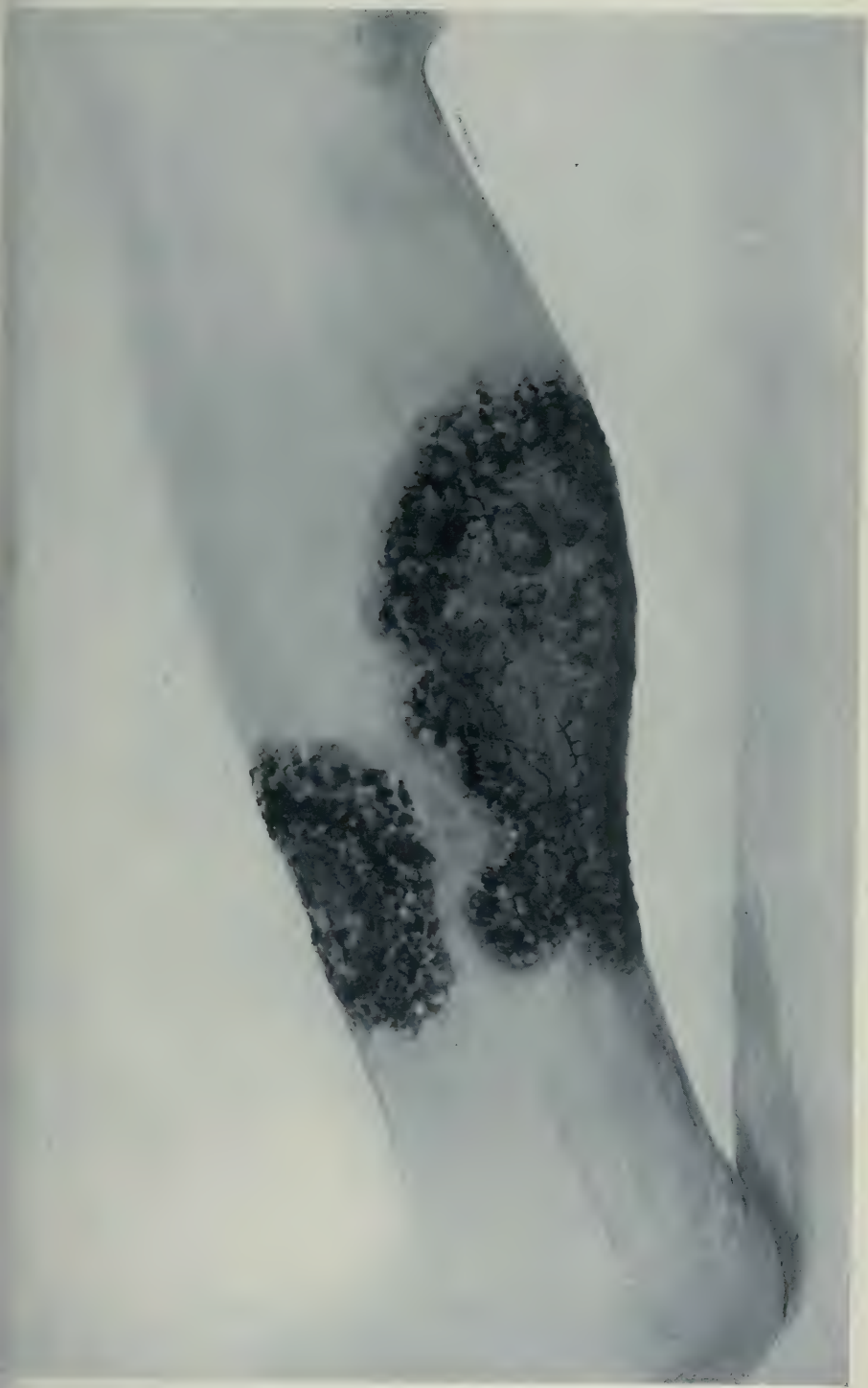


PLATE I. BROMIDE ERUPTION

Illustrating Dr. D. King Smith's Article

*The Canadian Practitioner and Review,*  
April, 1915.





PLATE II.

## BROMIDE ERUPTION

Illustrating Dr. D. King Smith's Article

*The Canadian Practitioner and Review.*  
April, 1915





## SUBCUTANEOUS INJECTION OF OXYGEN AS A TREATMENT FOR TETANUS

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BY

H. O. HOWITT, M.D., L.R.C.P., Lon., M.R.C.S., Eng., Guelph;  
and D. H. JONES, Professor of Bacteriology, Ontario  
Agricultural College, Guelph.

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As *Bacillus tetani* is an obligate anaerobe and will not develop in the presence of the smallest amount of oxygen, it was thought that the injection of oxygen into a tetanus wound, and into the tissue immediately surrounding the wound, would be more or less efficacious as a treatment, or auxiliary treatment, in delaying the onset of the disease, or rendering it less acute, if not in preventing the development of the disease altogether.

In the Canadian Medical Association journal for November, 1914, Dr. H. O. Howitt reported beneficial results from the subcutaneous injection of oxygen in cases of dyspnoea of tuberculosis, gas poisoning, pneumonia, oedema of lungs, bronchial asthma, and operative cases, and his successes with this treatment led him to surmise that it might be valuable in cases of tetanus and other anaerobic infections, such as malignant oedema, symptomatic anthrax, etc.

The prevalence of tetanus infections, causing extreme mortality in the European war zone, led him to think that a few animal inoculation experiments with tetanus and the subcutaneous injection of oxygen might be of use in ascertaining whether the treatment was of any value or not in this connection. Accordingly, Dr. G. C. Creelman, President of the Ontario Agricultural College, was asked if it would be possible to carry on the experiments with tetanus in the bacteriology laboratory of the college. Dr. Creelman readily gave his consent and referred the matter to Prof. D. H. Jones, in charge of the laboratory. As a result, the following experiments were planned in which Dr. Howitt was responsible for the oxygen injections and Prof. Jones for the cultures, inoculations and subsequent observations.

### CULTURES USED.

A fresh culture of *Bacillus tetani* was obtained from the Parke Davis Co., and subcultures were made from this in dextrose beef broth extract bouillon, and dextrose beef extract agar.

incubated under anaerobic conditions at 37° C. for three days, and kept later at room temperature.

#### VIRULENCE TESTS.

To test the virulence of the cultures, a guinea pig, 790 gms. weight, was inoculated subcutaneously on inner side of right thigh with two drops of a three-day old bouillon culture. After twenty-four hours tetanic symptoms were shown by the extension backwards and outwards in a rigid condition of the inoculated leg. Five hours later, respiration was labored, hinder half of body partially paralyzed and dragged around cage with difficulty. Twelve hours later, a total of forty-one hours from time of inoculation, the animal was found dead.

#### OXYGEN INJECTION EXPERIMENTS.

The oxygen injected was obtained from oxone cartridges as prepared by Roessler & Hasslachner Chem. Co., New York, from which oxygen was generated in the portable oxygen generator made by the Hartz Co. of Toronto, Cleveland and Detroit. The oxygen escapes by means of a long rubber tube, at the distal end of which is an aspirating needle which is inserted in the subcutaneous tissue. The tube is then oiled, and by a pumping action of the hand the oxygen is forced through the needle.

#### SERIES I.

In this series four guinea pigs were used. They were divided into two pairs. All four were inoculated with *Bacillus tetani*, and one member of each pair was given an injection of oxygen near the point of inoculation, while the remaining member of each pair was kept as a control. Sufficient oxygen was given to raise an emphysema from three to five centimetres in diameter in the immediate region of the point of inoculation.

(*Note.*—In all the cases where tetanus developed, the symptoms were similar to those described above in the virulence test, the only difference being the varying time of onset and termination of the disease.)

*Pair 1. Guinea pig 1, 760 gms. (Control).*—Inoculated subcutaneously with  $\frac{1}{2}$  drop of an 8-day bouillon culture on inner side of right thigh.

*Result.*—Tetanic symptoms first observed after 36 hours. Convulsions and death after 72 hours.



*Guinea pig 2, 760 gms.*—Inoculated same as No. 1, but oxygen injected immediately after.

*Result.*—After 18 days no tetanic symptoms had developed; guinea pig well, having shown but little inconvenience at any time.

*Pair 2. Guinea pig 3, 840 gms. (Control).*—Inoculated with 1 drop of 8-day bouillon culture.

*Result.*—Tetanic symptoms first observed after 30 hours. Convulsions and death after 46 hours.

*Guinea pig 4, 720.*—Inoculated as above and given injection of oxygen immediately.

*Result.*—Tetanic symptoms first observed after 44 hours. Convulsions and death after 84 hours.

We see from the above that with the first pair where  $\frac{1}{2}$  drop of culture was used for inoculation tetanus developed and terminated fatally in case of the control, but had not developed where oxygen was injected, at the time of going to press eighteen days later. With the second pair, where the amount of inoculum was double that used in the first pair, tetanus developed with fatal termination in both cases: but the appearance of tetanic symptoms and subsequent death was considerably deferred by the one injection of oxygen.

## SERIES II.

For this the agar plate cultures were used. To inoculate, a puncture was made through the skin with a sterile sharp instrument, then a platinum needle was drawn through the surface growth of the culture and inserted into the wound.

As with Series I, four guinea pigs were used. They were divided into pairs, and one of each pair was inoculated and immediately given a subcutaneous injection of oxygen and the other member of each pair was inoculated and not given oxygen.

*Pair 1. Guinea pig 5, 630 gms. (Control).*

*Result.*—Tetanic symptoms first observed after 38 hours. Death following tetanic convulsions after 66 hours.

*Guinea pig 6, 700 gms.*—Oxygen injected after inoculation.

(*Note.*—Some of the oxygen injected bubbled outward through a drop of blood at the point of inoculation, indicating that the wound was being well bathed with the oxygen, which

would thus be brought into direct contact with the bacteria and prevent their development.)

*Result.*—Tetanus symptoms first observed after 90 hours. At the time of going to press, 8 days after inoculation, the pig is alive and active on three legs, and able to eat hay. The inoculated leg has been more or less extended and rigid for the last three days. It looks very promising for an ultimate recovery, as though an active immunity is being established.

*Pair 2.*—Guinea pig 7, 700 gms. (Control).—Inoculated.

*Result.*—Tetanic symptoms first observed after 36 hours. Death following tetanic convulsions after 50 hours.

*Guinea pig 8, 840 gms.*—Inoculated and given oxygen injection.

*Result.*—Tetanic symptoms first observed after 51 hours. Death following tetanic convulsions after 72 hours.

With this pair, as with the second pair, in Series I, we noticed that while tetanus with fatal termination developed in both cases, the time of onset of the disease and of death was much delayed by the oxygen injection.

We take it for granted that the reader is acquainted with the modern treatment of tetanus, e.g., use of anti-tetanic serum, hypodermic injections of dilute carbolic acid solution, anæsthesia for spasms, the darkened room, chlorotone, etc., but draw attention to the fact that the only treatment used in these experimental cases was the direct deep injection of oxygen into the wounds, and we assume that, if the beneficial effects in these cited cases were due to the injection of the oxygen, other anaerobic infections might be at least equally well benefited.

We do not say that these limited experiments prove conclusively that subcutaneously injected oxygen is a sure cure for tetanus, but we think the results obtained warrant their publication, and we feel justified, in view of the fatalities that are occurring in the war zone from tetanus and malignant œdema, to call the attention of the medical men in attendance, and others, to the beneficial effects obtained from this treatment as in the above cases, with the hope that it may, in some measure, aid in the prevention of, or recovery from, the disease with the wounded.

A fuller account of the experiments will be published later, and further experiments are planned which it is intended shall be carried out in the immediate future.

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H. B. ANDERSON, M.D.,

President, Academy of Medicine, Toronto.

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The purpose of this meeting is to emphasize the importance of the central feature of the Academy, viz., the library, to acquaint the Fellows with what has been done in the past to build up our present collection of books and journals, and to suggest lines for future development. It will be accepted without argument that no great medical centre ever developed apart from the advantages of good libraries, and that access to the best literature is essential to professional progress. There is no better index to scientific and clinical activity than the interest taken in collecting the literature devoted to the investigation of the problems in which we are, or should be, concerned. The Academy of Medicine was organized in 1907 around the nucleus of the Ontario Medical Library. The institution of the Ontario Medical Library we owe largely to the efforts of the late Dr. J. E. Graham, who for so many years held a foremost place in the confidence and esteem of the profession of this Province. He saw that a good library was necessary for the progress of the profession. He was ably seconded in his work by Dr. Powell, Dr. Reeve, the late Dr. Ross, and other prominent members of the profession in Toronto. The formal opening of the Ontario Medical Library took place on November 1st, 1888. The first book accessioned in the library, I am informed by Dr. Powell, who was for many years Curator, was this autograph volume of his Medical Essays presented by the late Dr. Oliver Wendell Holmes.

Time will not permit my following the often discouraging efforts of those who labored faithfully to build up in Toronto a collection of books of real value to the profession. For several years in the early history of the Ontario Medical Library it was necessary for the members of the board to supplement the income of the Association out of their own pockets in order to pay the librarian and other current expenses. For many years the library was housed for us free of charge in the meeting-room of the Toronto Medical Society in the College of Physicians and Surgeons' Building at the corner of Bay and Richmond Streets. I think we touched bottom in 1899, when we had only forty-two members paying two dollars each, or a

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\*Read at the meeting of the Academy of Medicine, Toronto, March 2nd, 1915.



total income from fees of eighty-four dollars. Something had to be done, and largely through the efforts of the late Dr. Ross, a movement was initiated to acquire a more central location in a building suited to our purposes. Funds were raised by contributions from the doctors of the city, the amount obtained being duplicated through the generosity of the Massey Estate. This enabled us to acquire the premises at 9 Queen's Park from the University on very favorable terms. This was the first great step in advance after the organization. The next was the formation of the Academy in 1907 under charter from the Legislature of Ontario. By unanimous consent of the contracting parties, the Toronto Medical Society, the Toronto Clinical Society and the Toronto Pathological Society merged their interests with the Ontario Medical Library to form the Academy. As the University later required the premises at 9 Queen's Park, through the efforts of our then Trustees—Dr. Ross, Dr. Reeve and Dr. Powell—we came into possession of our present property, probably the most desirable site for a central meeting-place owned by any Medical Society on the continent. From the time we first approached them, the University authorities, recognizing no doubt the educational value of our efforts, have shown a generous interest in our work, and it is only fitting that we should acknowledge our appreciation of what they have done for us.

I do not propose detaining you, for, as you will notice by the programme, different phases of our work will be dealt with to-night by men more competent than myself to interest you, and I shall not trench on their time. Dr. Locke will speak on the value of Special Libraries, and there is none more competent than he to speak with authority. As it is impossible, from lack of money, for us to get all the books we should have access to in any one library in Toronto, Mr. Langton, the Librarian of the University, has been good enough to accept our invitation to outline a workable plan to obviate unnecessary duplication of expensive publication in the University, Hospital and Departmental Libraries of the city. Professor McMurrich will speak of the use and importance of the library in research and preparation of papers. Dr. Elliott will deal with the present status of the library, and Dr. Reeve will speak of the new building which a violent outburst of German "kultur" has prevented our having in course of construction at the present time.

We believe our library should command the support of the whole profession and it should be our object to enlist the backing of everyone who is a factor in the medical life and progress

of Toronto, and have their active assistance in our common interest to build up something worthy of our city and province. Our charter provides not only for a library, but for a museum as well, and this should be begun after the erection of our new building.

Miss Charlton, our energetic and very efficient Librarian, has placed in my hands the following note, which I am sure will appeal to all of us: "We need rare medical books, works of special interest, paintings, engravings, statuary." Sir Wm. Osler has written her: "Keep ever in view, each one in his circle, the important fact that a library should be a storehouse of everything relating to the history of the profession of the locality—file letters and manuscripts of all kinds in the historical section."

Every Fellow should interest himself in procuring donations of books, journals, reports, historical documents, letters, photographs, prints, pictures and statuary for our collection. In the few years since the library was started, we have acquired by gift and purchase between six and seven thousand bound volumes and two or three thousand unbound volumes, constituting the second largest collection in the Dominion. Compared with the largest medical libraries, this collection may appear insignificant, but it already ranks twenty-eighth in size on this continent. By united effort and enthusiasm we should, year by year, attain a higher rank until the library of the Academy of Medicine, Toronto, will be one of the great collections in America. The community of interest of over four hundred Fellows, and our annual income from fees of nearly five thousand dollars, make it possible for us to place at the disposal of the Fellows the best journals, books, scientific reports and other valuable literature properly filed, catalogued and accessible for use. Our present stack-room provides accommodation in a fire-proof building for some twenty-five thousand volumes. By enthusiasm and united effort, each of us can do his part toward further extending and making more indispensable this great asset of the profession, and I have no doubt that many of us will live to see the time when one of the great libraries on this continent will be found in a building in Queen's Park of which we shall all be proud to have done a part in bringing into being.

## THE PRESENT STATUS OF THE LIBRARY OF THE ACADEMY OF MEDICINE, TORONTO\*

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DR. J. H. ELLIOTT,

Hon. Secretary, Academy of Medicine.

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Any remarks I may make on the present status of the library may perhaps be prefaced by a reference to the first page of the original accession book.

The Academy may point with pride to the book about which the present library of seven thousand volumes has grown. This book I hold in my hand—an autograph copy of Oliver Wendell Holmes' "Medical Essays," presented by the author to the Ontario Medical Library. The next accession was a number of books from the library of Dr. Rolph, followed by a similar gift from the estate of the late Dr. Fulton. The last entry preceding the official opening of the library, November 1st, 1888, was a set of Guy's Hospital Reports from Dr. William Osler.

Among the larger gifts which helped the library in its earlier days were some 200 books from Dr. William Canniff, 310 volumes from the Toronto Public Library, 225 volumes from McGill University, 315 from the Boston Medical Library.

With a small annual appropriation for purchases the library grew rapidly through gifts and exchanges from outside sources, while many of the Fellows have given freely. Particularly are we indebted for books and journals to the editors and publishers of the medical journals of Toronto.

Our accession book to-day shows a few less than seven thousand volumes. There are still to be accessioned some three or four hundred books from the libraries of the late Daniel Clark, the late James H. Richardson, Dean Geikie, Wm. Oldright, Price-Brown, and from other sources. In addition there are some one thousand three hundred volumes (some incomplete) of unbound journals, all classified and arranged on the shelves awaiting binding. I think I am quite safe in anticipating that the work now being done by Miss Charlton and her assistant, Miss Binks, will allow us at the end of another year to say that we have about nine thousand volumes of books, journals and transactions on our shelves, properly catalogued and readily available for reference.

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\*Read before the Academy of Medicine, Toronto, March 2nd, 1915.



We are receiving this year through gift and purchase 180 weekly, monthly and quarterly journals. These are fyled in the reading-room and are removed for binding or placed unbound in the stack upon completion of each volume. These include the Canadian journals, the leading American journals, British, French and German journals.

Among the more valuable sets in the stack, I may refer to the complete Guy's Hospital Reports, *The American Journal of Medical Sciences*, almost complete from its beginning; Virchow's *Archiv* from volume one (the gift of Sir William Osler), and the *Annals of Surgery*, the *Edinburgh Medical and Surgical Journal*, practically complete.

The Guy's Hospital Reports contain such contributions to medical literature as Bright's description of nephritis, with his epoch-making distinction between cardiac and renal dropsy, his original accounts of acute yellow atrophy of the liver, of Jacksonian epilepsy, and of "Status Lymphaticus," the writings of Heberden, Addison, Hodgkin and others in these reports form milestones in the progress of clinical medicine.

In the *Edinburgh Medical and Surgical Journal* will be found such contributions as Corrigan's original description of aortic insufficiency, which is illustrated by a beautiful plate showing the various changes in the valves in this condition. We have also the writings of his famous colleagues in Dublin, Robert James Graves and William Stokes.

The surgeon who wishes to become acquainted with the writings of those who have been outstanding men and whose names are still remembered in surgery may take pleasure in the volumes of John Hunter, Pott, Abernethy, John and Benjamin Bell; Sir Astley Cooper, whose biography by Bransby Cooper relates stirring tales of the resurrection men; of Cheselden, who in pre-anesthetic days did a lithotomy in five minutes, and usually in three; Coles, Liston, Syme and Lizars, the French surgeons; Larrey, who did as many as two hundred amputations in one day, and whose memoirs of his campaigns with Napoleon should interest every surgeon at the present time; Dupuytren, Lisfranc, Velpeau, Malgaigne and Nelaton also find a place upon our shelves.

The library is not rich in biography and works relating to the history of medicine, yet there is much that will repay the student and reader. The young physician, as well as the older one, cannot read the life of Lænnec in Forbes' translation without receiving great stimulus, and the same may be said of the biographies of Hunter, Paget, and a score of others. The life

of James Jackson, Jr., who as a student pointed out the occurrence of prolongation of the expiratory murmur in early apical tuberculosis, will well repay perusal. We think that the student of to-day has much to read and master, but the same was true a century ago when James Jackson wrote of his son that "Before the termination of the second year of his pupilage he went through the Epistles of Morgagni on the seats and causes of diseases, as translated by Alexander, in three thick quarto volumes. He took notes on what he read, and as he went on compared with it the invaluable work of Baillie on Morbid Anatomy, another quarto, with the plates accompanying it. This he did indeed in the quiet of the country, but he took proper time for exercise, and did not seem to me more industrious than at other periods. He, however, completed the whole in seven weeks. Nor did he read this work as a task, without possessing himself of its contents. He read it with great interest; and he fixed in his mind so many of its details, that by the aid of his short notes he was able to refer to it afterwards. Thus I find in his early autopsies in Paris, which he entered in his commonplace book, many references in the margin to cases in this great storehouse of post-mortem researches."

We have no books which we can classify under the head *Incunabula*. The nearest is the volume I show you of *Udalricum Binder*, a quarto almost as new, which appeared in 1506, not fifty years after Guttenburg printed his first medical publication, the *Purgation Calendar*, three years before Henry VIII ascended the throne. Another book which is worthy of attention is this beautiful volume of *Albucasis*, a native of Cordova. This volume deals with fractures and dislocations. He was apparently the first to write on the treatment of deformities of the mouth and dental arches, and he mentions the obstetric posture which is now known as the "Walcher position" (Garrison). This book, you will see, is a folio printed in double columns, in beautiful black face type; the pagination, which is successive, is only on the right hand page, and, as in these early books, possesses no title page. The colophon reads, "*Liber theoricæ nec non practicæ Alsaharavii, qui vulgo Acararius dicitur. 319 pp. fol. Auguste Vindelicorum, S. Grimm et M. Vuirsung, 1519.*"

In the book case in the small room off the north-west room (laryngology and otology) you may see several old and interesting works, the 1560 edition of Valverde's *Anatomy*, published in Rome. This book has forty-two plates. There is also a *Treatise in Lithotomy* by Alghise, Florence, 1708, beautifully

bound. These, with the dainty little Eelzevir edition of Celsus, are the gift of Dr. George Porter. There is also a large folio of Hippocrates which was formerly in the library of Dr. Theophilus W. Mack.

The interest which centres in these old volumes may be illustrated by a reference to the Albinus edition of Eustachius which I hold in my hand. This appeared in 1714. The anatomical plates in this book were made from his dissections, and he spared no labor to give accurate views of the shape, size and relative position of the various organs. He finished his plates in 1552, nine years after Vesalius' work appeared. They were probably the first anatomical plates to be engraved on copper, and were done by himself. The text of the work is lost, neither it nor the plates having been published by him. The plates found their way, on his death, into the Vatican Library, where they were hidden from the world for nearly one hundred and fifty years. When they were found Lancisi, physician to Pope Clement XI, published them in 1714. A more correct edition was published by the Dutch anatomist, Albinus, in 1761. Had these been published by Eustachius there is no doubt that anatomy would have been advanced two hundred years.

There is in the Council Room an interesting collection of prints and engravings which were collected by Sir William Osler and presented to the Academy by his brother, Sir Edmund. It is to be hoped that the Fellows will interest themselves in adding further to these, which we hope will prove the nucleus of a valuable collection of such.

The Academy, as has been pointed out by the President in his address, should be the repository of everything relating to the history of medicine in Toronto and in Ontario. We have the major portion of the libraries of Dr. Rolph, Dr. J. H. Richardson, and others of the earlier practitioners in Ontario. We have yet collected very little historical material. The papers you will find spread out on the table are the diplomas and hospital certificates of Dr. William C. Gwynne. They were presented to us by his daughter, together with letters from many of his professors. Among these papers is one letter received by him from Sir Charles Bagot, Governor-General of Canada, whom Dr. Gwynne attended during his illness. The letter reads as follows: "With Sir Charles Bagot's most grateful thanks to Dr. Gwynne, as a very inadequate acknowledgment of his sense of the consummate skill and unwearied attention by which he has restored him, as he now confidently trusts



and believes, to life, and probably to a state of health which he had thought that he was never again destined to enjoy."

There must be scattered throughout the Province much similar material, which would be well worthy of being placed in the Academy.

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## THE NEW ACADEMY BUILDING \*

BY R. A. REEVE, M.D.

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To possess a home of some kind is the ambition of most men, and to have a becoming domicile is the laudable aim of almost every organization. To be well-housed gives character and stability to an institution and makes a favorable impression, the value of which cannot be ignored. Our Academy was doubly fortunate at the outset in having not only comfortable and fairly commodious quarters of its own, but also a good working library as a strong attraction, and a valuable asset. The records of kindred societies show what an impetus has been given them by the possession and development of a library, and the erection of a dignified if not imposing structure as a suitable home. Our library is not a source of special anxiety: it grows from month to month in quality and bulk, and we have ample room for future increase, the stack-house being shelved for 25,000 volumes.

Our chief concern is that the present building cannot accommodate its large and growing family of members. Present necessity, therefore, impels us to prepare to enlarge our borders at the earliest moment feasible. To this end preliminary sketch plans have been secured and have been submitted by the Trustees to the Council and by the latter to the members at large. We will try to avoid what is said to be a common mistake in building, the ignoring of the larger demands of the future. The design, while certainly making generous provision, has the advantage that only two of the three units of which it is composed will be built at first. The present building and the stack-house, which now serve us to such good purpose, will supply the place of the third or west unit for some years to come. This scheme, which has been well considered, is quite practicable, and somewhat elastic, and places some of

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\*Read at the meeting of the Academy of Medicine, Toronto, March 2nd, 1915.

the onus where it ought to rest, upon our successors who will doubtless live in more halcyon days.

One unit we have good reason to believe will constitute a Memorial Hall; and there is ground for the expectation that the large library room in the second or middle unit will also be of a memorial character, so that with a fairly moderate additional outlay on the part of the Academy the major part of our new building will be secured.

The plans were then thrown upon the screen.

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## MR. GAGE AND THE DOCTORS

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JOHN HUNTER, M.B., TORONTO.

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The auspicious opening of the new building on College Street set apart exclusively for the care of tuberculous patients marks an accomplishment—in at least so far as the writer knows—absolutely unique in medical history, and in fact very rare in that of any other calling. Mr. Gage, a business man, without any special training in the science and art of medicine, entered the medical arena, qualified himself for and accepted the full responsibility of leadership in a campaign against tuberculosis. At the opening ceremony above referred to, his leadership was acknowledged by the Lieutenant-Governor, the Premier, members of the Board of Trade, the clergy, an ex-school inspector, and by none more heartily than by two distinguished members of the profession, which, in sporting parlance, was “beaten to a frazzle” at its own game.

In aseptic and antiseptic surgery, in the prevention of small-pox, typhoid fever, yellow fever, malaria—in fact, wherever preventive measures have been most effective—laymen have never even challenged the leadership of medical men; but in the prevention of tuberculosis and in providing for those afflicted by this disease, Mr. Gage's leadership has never, at least so far as Ontario is concerned, been challenged by any member of the medical profession. His unique accomplishment seems all the more paradoxical when we know that without the knowledge acquired by medical men, and without their aid in applying this knowledge, all his efforts would have failed.

The ravages of smallpox and of suppurating wounds in hospitals gave the world a Jenner and a Lister. Why have not the awful ravages of tuberculosis called from the ranks of the medical profession equally unchallenged leadership?

However, the medical profession, in its humiliation over the loss of even one race in its own arena, cherishes the spirit of the true sportsman, entertains no jealousy or grudge toward Mr. Gage in his magnificent philanthropic achievement, but presses forward in a sure faith that from its ranks leaders will yet spring whose authority in tuberculosis will be as undisputed and as indisputable as that of Jenner and of Lister.

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### **The Intravenous Treatment of Rheumatic Fever**

Patterson (P.M.). *New York Med. Jour.*, 1914.—This method has been used by the writer with gratifying results in twenty-eight cases of acute rheumatism, also in a number of subacute and chronic cases. The solution used consisted of sodii salicylatis, guaiacolis, glycerine of each 4.129 gms., aqua destillatæ ad 200 cc. Of this 75 cc. were given together with 125 cc. of normal saline at a temperature of 100° F. The arm was prepared as for an ordinary infusion and strict aseptic precautions taken. The mixture was allowed to run in slowly, i.e., taking five to ten minutes for the infusion. As a rule in half to one hour after the injection the patient began to perspire profusely, and this continued for four to ten hours with complete amelioration of the symptoms. Routine after-treatment was followed. Cases treated from the beginning of the attack were cured in six to twelve days. Not a single failure to relieve was observed. The writer believes that where a physician is able to follow up this intravenous injection by proper medication, dietetics, and hygiene, it is far superior to any treatment we possess, not excluding vaccines.—*The Medical Chronicle*.



## Selected Articles

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### JEALOUSY AS A CAUSE AND AS A SYMPTOM OF INSANITY

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SIR GEORGE H. SAVAGE, M.D., F.R.C.P. LOND.

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At present the chief aim in medicine appears to be the detection of material causes of disease in the body, but when we have to study disorders of conduct we at once find it is impossible to trace morbid deviations in conduct always to a specific organic cause.

Disorder in conduct may vary immensely, and yet not be so much out of harmony with the surroundings as to constitute insanity.

What I shall endeavor to do will be to consider what may be called normal jealousy, and, by considering its different forms and also its degrees, state what my experience has taught me as to its relationship to insanity.

My first difficulty is the definition of the word.

It is essentially a personal feeling, one in which one feels powerfully a want of something which another has. Usually the term is associated with the sexual relations, and certainly it is most potent in these, and I was inclined to think at first that its origin was a sexual one; but I think this is too narrow a view to take.

For certainly in the lower animals jealousy occurs in reference to food before and apart from any sexual ideas. The desire for food and the wish to retain what one has seems to me to have been an example of the earliest forms of jealousy.

The hunting animals have always been very jealous of others sharing their prey, and even resent dividing this with their mates.

Though there might be a question as to the jealousy being present as the result of food desire, it seems to be certain that very early it was seen in the struggles between the younger and the older males for the possession of the females. This is seen in both the monogamous and the polygamous animals. It is visible in fishes, for I have often watched the spawning trout and noticed the violent attacks made by the male fish on any other, particularly any smaller male, who might approach his

spawning mate. This is interesting and peculiar, because there is no sexual bodily connection, but only what might be called a mutual simultaneous discharge of two secretions.

With birds, the sexual jealousy is marked at and before the time of mating, and the struggle is often between parent and offspring and is a definite struggle for possession.

With mammalia, the struggle is fierce and evident, the meekest of rodents and the wildest carnivora being willing—one might almost say longing—for combats for a mate. In anthropoid apes, I believe, this is also present, but not in such a bloodthirsty way.

In man it varies in cause and degree, and I shall have now to point out certain classes or divisions which I shall make in studying the subject.

There is the jealousy of the man in reference to his wife, the jealousy of the wife in regard to her husband; the jealousy of a father of a son is rare, but the jealousy of a mother of her daughter is common, and may lead to very evident mental disorder. Allied to some extent with this is the jealousy of a nurse of her matron, or of a nun of her superior, and this may be paralleled by that of a monk and his superior.

I have for many years been interested in tracing what I have called morbid mental growths. This I did originally in opposing the ultra-materialistic pathology.

That the nervous system is the agent of mental processes one has to admit, but that all morbid and insane conduct can be related to definite changes in the nervous system was to me inconceivable.

As there can be no absolute standard of truth, there can be none of sanity, and though the conduct of an individual is represented by nervous tissue changes, yet these changes are not to be looked upon as constant and causal.

My real contention, then, is that jealousy, which may attain an immense degree in quite normal health, may at times develop as a morbid mental growth. Elsewhere I have pointed out that these morbid mental growths may be simple or malignant, they may cause inconvenience or illness from their size or their position, thus resembling fatty or other innocent bodily growths, or they may invade and destroy the mind just as cancerous growths invade and destroy the body.

It will be part of my duty to trace the development of jealousy in its various degrees, and to show that it may lead to nothing more than marital incompatibility, or it may lead to homicidal violence.

And now I come to special cases.

One of my most common experiences of these cases is as follows:—

A marriage begun as the result of a strong passionate attraction passes into a stage of sexual apathy on the part of one of the couple which is not felt by the other. The young woman who notes the lack of amorous ardor becomes suspicious, and, as we all recognize, and as Shakespeare represented in Othello—"Suspicion light as air . . . ."

Once start doubt and suspicion, and it takes but a short time to forge facts. The wife seeks evidence in her husband's letters, and as an almost constant symptom she examines the blotting-pads in his study or office. This may end here. It may lead to family jars and perhaps separation, but, on the other hand, it may lead to scandalous postcards addressed to some supposed accomplice, or to infanticide and suicide.

I have come across several instances of threats of this kind, but, personally, I have not been concerned in any case in which insane jealousy has led to detention in Broadmoor.

Another not uncommon type is associated with the menopause. As often happens in women, more particularly between forty and fifty, there is a strong revival of sexual desire. I frequently meet with frantic masturbation at the menopause in women who for very many years have been almost without sexual feeling, and I have seen many women who, at the same time, have felt disappointed that their husbands were unwilling or incapable of meeting their desires. In some of these cases a late pregnancy has followed, and in other cases the period of desire has been followed by one of mental depression and disgust at the result of the revived temporary passion.

But in the cases specially under notice here the woman develops suspicions leading to jealousy and delusions as to her husband's conduct.

I have known this lead to nothing more than marital incompatibility, but I have met cases in which there has been complete wrecking of all home life. Take an example: A very busy and energetic man, holding an important public position, a father of several healthy children, found himself quite unable to satisfy his wife's revived sexual desires and absented himself on business from time to time. This caused doubt and suspicion, and his hotel and restaurant bills were studied, when it was found that, though he and his two sons were together in Paris, yet the account was for four persons. His statement that it was a male friend was doubted. Sudden visits on the



most frivolous pretexts were paid to his office, and in his absence very compromising questions were asked of the clerks. This continued for some time till the wife secluded herself and barricaded the country house to prevent the entry of a guilty husband and consenting sons. Violent threats and false accusations led to her being certified, and after about a year the physical and moral storm passed and normal and useful life was restored.

Men whose official duties take them away from home a good deal, more particularly if their work includes association with other women, even as servants, run special risks, and I have felt almost inclined to refer to the lady-typist jealousy. In these cases every defect of morbid conduct may follow false accusation of husband and libellous attacks by letter or the use of sulphuric acid, or the like, to disfigure the suspected accomplice. You will ask, is this not more criminal than insane, and I must reply that in some cases it is hard to distinguish.

To the jealous wife at the menopause no evidence satisfies. The husband's letters are read and torn ones pieced together. The blotting-pad is studied, watching at doors and inspection at keyholes is followed till the husband's life is intolerable, and yet in many cases no doctor would feel justified in certifying the wife as insane. The question of the degree of disorder of conduct which renders certification justifiable is hard to gauge.

So far I have referred to the disorder as met with in ordinary conditions, but I remember a very good example of the sexual bearing of the disorder in less usual circumstances.

A lady of about 25 called on me and asked if I could get certain food and drugs analysed, because she felt certain her husband wanted to get rid of her. When asked for details I found she had married a man some forty years her senior, and she said they arranged to marry but not to live maritally, merely as companions, though occupying the same room and the same bed.

The effect was unsatisfied eroticism in the woman and later ideas that some other woman might enjoy what was denied to her. Thus grew the delusion that she was being poisoned. I warned the husband in vain, and shortly after she attempted to kill him and burnt his house down, and even then I had difficulty to persuade the man that his wife was mad.

Men may be insanely jealous, and sexual defect is one possible cause. I was asked to report upon the case of a clergyman who accused his wife of improper conduct with a neighbor and church-warden. That his wife took her afternoon walk near

the neighbor's house, that she bowed to him on passing, and that she was regular at early communion sufficed to convince him of her guilt, and with an absurd assumption of Christian charity his one word was that he would let the past be forgotten. The wife declined thus to admit guilt, and the husband had a change and for a time he seemed better, but later all his insane suspicions returned and necessitated definite steps being taken for his control and treatment.

In another case the explanation was not so easy to obtain.

An Oxford graduate, a double first and a double Blue, a splendid specimen of a young Englishman, married a young and attractive woman. Their married life was a happy one, and there were two children. The husband hinted that the clergyman was markedly attentive to his wife. She denied this. He accused her of walking past the rectory more often than was necessary. One Sunday, after morning service, he said the parson had made indecent signals to his wife from the pulpit. This was denied by the wife, but next day the husband called at the rectory and violently assaulted the elderly clergyman. As a result of this the husband was certified, and sent to an asylum. He improved in many ways. He lost his insane jealousy, but passed later into permanent mental weakness.

A patient was admitted into Bethlem as the result of threats against his second wife. He was many years her senior, and there was no family, and he felt his sexual inferiority. He was a tradesman, and his senior assistant was the object of his delusion. He accused him of immorality with his wife, whom he threatened to kill. After some months in the hospital, he seemed so much better that I sent him to a convalescent home, and on his return sent him on leave of absence to the home of a relation. Before going on leave, in a perfectly calm way, he said he was sorry for what he had done, but that he had actual and visible evidence of his wife's adultery with his assistant, and that he had determined to arrange for her and for himself to live apart. A month after, when returning from leave, he asked for an interview, which I gave him, and then with tears in his eyes he said the whole thing was a delusion; his wife was pure and he had somehow let the false idea grow until he really believed he had seen her in adultery, and so the cloud passed and he returned home.

I will now give you a very unusual case in which truth and delusion, associated with sexual jealousy, were present. A very strong, sober and healthy official, æt. about 65, was admitted

into Bethlem, having delusions as to the morality of his wife, and also threatening her with violence. After his admission I had, as was my habit, a long talk with him, and he spoke so calmly, and seemed to be so clear and consistent in his tale, that I thought it best to send for his wife. His accusation was that she had committed adultery with her cousin.

I represented to him the improbability of a lady of sixty thus falling, but he gave date and place of the occurrence. I saw the wife, and her tale was this: That in early girlhood she formed an attachment to a cousin; this was opposed by her family, and she married her present husband, whom she respected and liked but hardly loved. A few months after marriage, she went to visit her relations, and meeting her cousin, he took advantage of her and seduced her.

She felt deeply grieved, and at once returned to her husband and confessed all, agreeing to do whatever he wished. He forgave her, and from that time for forty years the fact was never mentioned and they led a very happy and united life, but with certain other signs of senile mental decay, memory for the present was lost and that of the past revived, and thus the act of forty years before appeared as a recent one. I felt certain that as the sands of time had been washed away, disclosing the skeleton, in time further denudation would remove the skeleton. This happened, and with declining years there was the peace of mental weakness.

An interesting medico-legal case in which insane jealousy played a part was this:

A young artist slowly developed delusions of suspicion and persecution, and he determined to take a novel way to protect himself by marrying. After several impetuous offers of marriage, which were refused, he made love to and married a governess. On the journey to Dover on the honeymoon the husband accused the wife of making signals to other passengers in the carriage. Nevertheless, she lived with him on the Continent, but as he was suspicious of his wife's honesty, he returned to England, where I saw him. At that time his wife was pregnant. I found that he knew this, but he said he was not the father, who in fact was the Prince of Wales, our present King.

He said the Prince was haunting the neighborhood, and that he (the artist) had a loaded revolver ready for him. This I thought necessitated immediate action, and he was sent to an asylum. He is now, and has been for years, a confirmed case of delusional insanity. I am pleased to say that though his



wife had co-habited with, and had a child by, him, a decree of nullity of marriage was obtained, as it was proved that, though he knew the nature and quality of marriage, he entered into the contract influenced by a delusion.

I shall now pass to a very different class of patients, few of whom are certifiable as lunatics, but who cause endless domestic trouble.

I refer to the jealousy of mothers of their daughters. I have met with a good many cases in which a mother thinks that her husband pays more attention to his daughter than to her. In everything she thinks that the daughter is preferred to her. Once started, this idea grows so that not only the husband but brother and friend are thought to show the same tendency to favor the daughter and to neglect the mother. Letters to the daughter are opened or suppressed, and the husband finds it impossible to live with his wife. I have known a mother develop an insane jealousy of her daughter, and do her best to thwart any proposal of marriage, even writing libellous postcards to herself conveying accusations against the daughter. As to the treatment of these cases, it is almost essential to keep the daughter away to a great extent, but not altogether.

I have heard of psychoanalysis and suggestion being tried, but I have as yet no record of success.

The husband had better periodically absent himself, pointing out that he does this as the result of the wife's conduct, but I fear that in nearly all cases the prognosis is bad and is hopeless, if it should occur or continue after the climacteric.

The next group differs greatly from those already given, but it contains a very large number of cases. In nearly all there is a religious rather than a sexual relationship. They very rarely require certification, or perhaps I ought to say they rarely provide symptoms which can be looked upon as certifiable ones. In these cases a subordinate is jealous of her superior's affection or attention to other subordinates. A nurse is jealous of other nurses who are, she thinks, favored by the matron, or a nun believes that the Reverend Mother passes her over in favor of some other nun.

This may occasionally be present with men. A monk may be jealous in reference to the head of a monastery, or a pupil may be jealous of his teacher.

Although, as I have said, there is generally a religious rather than a sexual origin for the unreasonable feeling, yet I have met with women who, having formed unnatural relations with another woman, become madly jealous of that person; and

I have met some instances of most virulent and dangerous symptoms in such cases.

Of the former case such an example as the following suffices:—

A refined but rather neurotic girl enters a hospital as a probationer. The matron notices her shyness and devotes extra time and attention to her till she finds her feet and gets into work.

The matron still takes rather special notice of her, and all goes well until another weakling probationer comes in. Then the matron again helps the feeble one, thus causing most acute jealousy in the first one.

As a result the life of the second probationer is rendered miserable, and the matron finds it impossible to do her work with the jealous girl near her. I have known the most scandalous accusations made by the jealous girl, and even attempts to poison or injure or disfigure her rival. Again you may say, unreasonable, but not insane; but if an assault is made, or social trouble arise, you may have to decide whether the patient ought not to be under control. Anyway, she must leave the hospital. I have met matrons who, out of kindness of heart, have tolerated such probationers for long periods, but it was always found to be a mistake.

In convents, similar cases occur, and I have found greater difficulties often in dealing with these cases, as the nun is very jealous of her distinctive clothes, and if she has to be sent away from the convent you start other dangerous and morbid symptoms.

I recall one very typical case in which a lady of good family entered as a probationer at a religious training home. She was very energetic and took a keen interest in her work. She was almost too conscientious and was constantly appealing to the Sister Superior for advice. She gradually seemed to want to appropriate the Sister, and this caused jealousies and trouble, and she was told kindly and firmly to do her own work and not trouble the head of the house. She became sleepless, worried and depressed, till one day she stabbed the Sister in the throat with a pair of scissors, and upon that was certified and sent to an asylum. Here she slowly recovered her self-control and her sanity.

And now to sum up the whole matter. Jealousy may be an associated cause or a symptom of insanity. Perhaps it would be better to say that it is often met with as a symptom of mental instability, which may lead to such a degree of dis-

order in conduct that it has to be treated as insanity. It is often associated with sexual disorder, and may be only a symptom of such disorder, and may thus pass off when normal functions are re-established. Change of surroundings and removal from the irritating cause is essential.

As will have been made clear, jealousy may and often does cause endless social troubles and complications, and may lead to insane and criminal acts.—*Medical Press and Circular*.

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### Some Results of Excision of the Adrenal Glands

Elliott (T.R.). *Jour. of Physiol.* Summary: "Removal of one adrenal gland in a cat does not obviously affect the animal's health, nor does it when in addition the splanchnic nerves on the opposite side are cut. It causes usually some hypertrophy of the remaining adrenal and of accessory adrenals. The hypertrophy is almost entirely of cortical tissue. Subsequent removal of the remaining gland practically always causes death, but death does not usually follow as quickly as when the two glands are removed at one operation; this is probably a consequence of the hypertrophy mentioned above. In the moribund cat the blood-pressure is low, and there is nearly complete paralysis of the vasomotor and cardio-accelerator nerves (all other nerves reacting in an approximately normal manner). Thus stimulation of the splanchnic nerves, and injection of nicotine, cause very slight rise of blood-pressure. The paralysis is due to a change in the unstriated muscle, since pituitary extract and barium chloride have little or no effect. On the other hand a rise of blood-pressure and a quickening of the heart-beat are still caused by adrenalin. The paralysis of vasomotor nerves is not due to shock. A sufficient decrease of temperature causes a somewhat similar paralysis, but the decrease of temperature in the glandless animal is insufficient to account for the paralysis found. The paralysis is then a change due to the absence of adrenal secretion. Some evidence is given that the cortical adrenal cells influence sex characters."—*The Medical Chronicle*.



## Reports of Societies

### REPORT OF ACADEMY MEETING

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The regular monthly meeting of the Academy of Medicine was held in the Academy Building on Tuesday evening, March 2. The programme was devoted entirely to the Library, and the papers read proved of great interest to the Fellows.

Dr. H. B. Anderson in his paper (see page 169) outlined the origin and growth of the library of the Academy and its relation to the profession and the University.

Dr. Geo. H. Locke spoke of the value of special libraries in commercial and municipal life; how large corporations and firms had libraries dealing with all the phases of their special subjects, and which will afford them instant information on any point which may arise.

Such a library is a matter of business even with a professional library such as that of the Academy. The librarian is in a position to secure for any worker the record of work done by previous investigations, and thus avoiding unnecessary work. Much of so-called research work is rank foolishness—mostly with accent on the *re*. Careful survey of the literature of a subject would allow an investigator to start out on an *arbeits* with full knowledge of what had already been done.

Mr. H. H. Langton, Librarian of the University, in discussing the Co-ordination of Medical Literature in Toronto Libraries, urged the consideration of some mutual arrangement between the two medical libraries of the city—those of the University and the Academy. The expenditure of money each year on the same expensive journals is to be deplored, when by a mutual understanding the same expenditure would give an extra set of journals now out of our reach.

It was suggested that a committee of the Academy meet the President and Librarian of the University regarding unnecessary duplication of journals and expensive books. It would be a simple matter to arrange reciprocity whereby the University readers may have access to the Academy library and the Fellows of the Academy access to that of the University.

Professor McMurrich, in speaking of the multiplication of medical literature, referred to the bibliographies of the literature up to the beginning of the eighteenth century. Albrecht Von Haller in his publications reviewed the previous literature;

unfortunately none of his books are known to be in Toronto. Some fifteen years after his time medical synopses were attempted by Braithwaite of all that was appearing. The volumes were not a success and were well limited to provincial English papers. Soon followed the German *Ergebnisse*. Canstatt's *Jahresbericht* attempted to give each year a synopsis of all the medical literature appearing; this was continued by Virchow, Hirsch, and others. Later appeared the special *Jahresberichte*, first for Neurology, then Surgery, Ophthalmology and other departments.

The most wonderful and complete medical library is that of the Surgeon-General's Office at Washington. The index to this forms a complete bibliography of all the papers in every journal in the library as well as of all books. It has many cross references, as the library receives all the medical literature published, it forms an exhaustive index of practically all available medical literature. The *Index Medicus*, which appears monthly, gives under subjects all the literature as it appears, and is indexed under both authors and subjects. With the previous volumes any paper can be readily located.

Dr. J. H. Elliott spoke on the present status of the library of the Academy. (See page 172.)

Dr. Reeve threw on the screen lantern slides of the plans of the proposed new home of the Academy, and explained them at length.

Dr. Powell spoke of the beginnings of the library and of its growth. He read the letter received by him from Dr. O. W. Holmes conveying a copy of his *Medical Essays*, which formed the nucleus of the library.

Before the meeting adjourned it was moved by Dr. N. A. Powell, seconded by Dr. H. J. Hamilton, and resolved, that the cordial thanks of the Academy be given to Mr. Langton, Dr. Locke and Dr. McMurrich for their able and stimulating and helpful contributions to the programme.

J. H. ELLIOTT,

*Honorary Secretary.*

## Editorials.

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### OXYGEN TREATMENT OF TETANUS

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We wish to call attention to a most interesting communication read before the Surgical Section of the Academy of Medicine, Toronto, on March 16th last by Dr. H. O. Howitt, of Guelph. (See page 165).

Dr. Howitt in December last conceived the idea of making the tissues an undesirable habitat for the tetanus bacillus or its spore. This he thought might be done by the subcutaneous injection of oxygen. In conjunction with Professor Jones, of the Ontario Agricultural College, experiments were undertaken to prove the hypothesis. Exceedingly interesting results were obtained. The experiments have clearly demonstrated the desirability of at once trying the method in human cases of tetanus and in infections with other spore-bearing anærobic bacteria, so common in the war zone.

Dr. Howitt in December last submitted his idea in the form of a letter to the War Office in London. In January he received due acknowledgment. It is a matter of considerable moment therefore that Canadians working in a Canadian laboratory should receive full credit for priority in this work. This is particularly significant in view of the work of Lawson and Whitehouse, which received editorial attention in the *Journal of the American Medical Association*, March 13th, 1915, page 913. Dr. Howitt is to be heartily congratulated on having suggested the possible value of oxygen injected subcutaneously in infections due to anærobic spore-bearing bacteria.



## NATIONAL SERVICE COMMITTEE

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It is generally understood that in the rush of patriotic work which has been going on in Toronto there has been some overlapping, and therefore mis-directed effort. Such being the case a number of women prominent in the various national societies have organized a National Service Committee, whose aim it will be to systematize the work which is being done. The officers are Hon. President, H.R.H. the Duchess of Connaught; Hon. Vice-Pres., H.R.H. the Princess Patricia; the wives of the Lieutenant-Governors, Lady Borden and Lady Laurier; President, Mrs. Albert (Col.) Gooderham; Vice-Pres., Mrs. Torrington; Treasurer, Mrs. (Col.) Bruce; Secretary, Mrs. (Canon) Plumptre.

A circular has been sent out dealing with the Red Cross supplies, comforts, Belgian Relief and French Relief. Every society, local, provincial or national, can get full particulars as to how to carry out their work, and how best to be of service, by writing to Mrs. Plumptre.

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## CONCERNING PEACE

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From an open letter issued by the National Service Committee we are instructed as follows: Letters and circulars in praise of peace have been issued calling on women all over the world to unite in the great efforts to stop the war. Our committee calls your attention to the following considerations: Few there are who would hesitate to declare in favor of peace. No neutral nation can hate war more than those

nations who are bearing war's burden. Though we may hate war, however, we cannot unconditionally condemn all war nor regard all belligerents as equally guilty. We have drawn the sword to defend the rights of the weak.

To sheathe the sword before these ends are achieved is to render useless the sacrifice of countless lives already laid down in the defence of this great principle. Could we now secure peace we would but leave to our children a dreadful legacy of hate and uncertainty. It would be in truth not a peace but a "truce," and worse than all we should leave Belgium to its fate as a German province.

When Germany has learned that right is stronger than might, when the mailed fist no longer threatens Europe, then may we hope for peace which our children's children may inherit.

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### ECHOES FROM HAMILTON

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We have heard much respecting the good work which is being done in Hamilton by the Daughters of the Empire, and other good women who have taken an active part in the fight against tuberculosis. Probably the most prominent among these good women is Mrs. P. D. Crerar of "Dunedin," Hamilton. For many years she was at the head of the Daughters of the Empire, Hamilton, and was also an official of the Hamilton Health Association. In connection with the fight against tuberculosis Mrs. Crerar was prominent among those who urged the securing of a Mountain Sanitarium for tubercular patients. After this institution was built and equipped it was formally opened by Earl Grey in 1906.

We are pleased to announce that His Majesty, King George, has recently bestowed upon Mrs. Crerar the Order of Lady of Grace of St. John of Jerusalem. Many people who have the pleasure of knowing Mrs. Crerar intimately agree with the editor of the *Hamilton Herald*, that he spoke in a pretty and fitting way as follows: "But the King did not make Mrs. Crerar a Lady of Grace, Nature did that, the royal action is only an official recognition of the fact."

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### THE TRIAL OF CARRIE DAVIS

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The following is a short history of the most remarkable case in a medico-legal sense that has ever occurred in Canada. Mr. Charles A. Massey was returning to his house on the evening of February 8th. He was met on the verandah by his maid, Carrie Davis, who had opened the front door and fired two shots, which caused almost instant death. As to the cause of this action we have to depend entirely on the evidence of Carrie Davis. She said that her mistress was away and that she was afraid of this man. That on the preceding day, Sunday, at noon he had made improper proposals to her, and had kissed her twice before she could escape from him. After hearing the evidence of Miss Davis her counsel asked for an adjournment until the next morning. After three addresses by the two counsels and Chief Justice Mulock, the jury retired and returned to the Court Room in about half an hour with the verdict "not guilty."

It was certainly one of the shortest murder trials on record in an ordinary civilized court of law.



Among the unusual features connected with the case were: 1. The friends of the deceased discouraged anything like a vigorous prosecution. 2. The Crown Counsel, who is an able and fair minded man, practically made no effort to prosecute. The Chief Justice, while impartial in his address to the jury, gave the impression that his sympathies were with the accused.

From a medical standpoint a study as to the psychological condition of this girl during the thirty hours after the alleged offence would be interesting. According to her own statement there was no attempt to use any force. She was able to tell her sister and brother-in-law the next day all about the matter. Her relatives decided that it was quite safe for her to return to the house, and advised her to do so. She said she became excited when she saw him coming up the street, and rushed upstairs and loaded a pistol, and brought it down with the intention of shooting and killing.

We may say in a general way that this verdict may establish a dangerous precedent. The girl did a "killing" which is declared not to be murder. In many quarters she is regarded as a heroine. We fear this is not a good specimen of the heroine to place before the ordinary hysterical girl who exists everywhere.

From the many opinions expressed in the public press we extract the following: *The Star Weekly* gives briefly the opinion of a lawyer, "whose authority on criminal matters is unimpeachable." "Was it excusable homicide of that kind which is called self-defence? Homicide in self-defence must have been committed under reasonable apprehension of danger to life. The danger must have been imme-

diate. After a lapse of 30 hours from the time of the dead man's overtures could it be said that there was immediate danger to life?"

Among many opinions expressed by prominent women of Toronto are the following: "I consider the case well disposed of." Another says: "She was making a stand for morality, she was apparently a girl of one idea." "She was as justified in killing a man for honor as a soldier is in shooting a man for the honor of his country." Another said: "She was in no danger: then to fire shots into an unprotected human being is the most cowardly of crimes. If she had been in peril it would have been different." And another: "Her own story is that she was irresponsible when she fired two shots; she lost control of herself, ran for a revolver and killed her employer. Is such a person safe at large? Mr. Massey's offence was inexcusable, but surely it does not justify her act. If Miss Davis was responsible when she killed Mr. Massey she deserves punishment. If she was not responsible when she fired the revolver at him she should not be at large but in some detention home."

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### BLANCHE YORK'S DEATH

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Dr. Robinson, of Tamworth, a small village north of Napanee, is twenty-five years of age. He graduated from Queen's University in 1912. He then spent four months in a hospital in Ottawa, and afterwards nine months in the General Hospital in Kingston. He then went to the Algoma District and practised six months in a logging camp. He commenced practice in Tamworth in January, 1914. He is married and has one child.

After prescribing twice for Blanche Yorke for

stomach trouble the girl went to Dr. Robinson's office on the evening of July 8th, and was never seen again alive. The mystery of her disappearance was partially cleared up when within a few weeks her dead body was found buried in Dr. Robinson's cellar.

Dr. Robinson was tried for murder at the Assize Court, Napanee, March 3 and 4. His own statement at the trial was practically accepted as correct. He found pregnancy advanced to nearly full term. The girl had slight hæmorrhage, according to his statement, and he gave her medicine, after which she left the house. She returned shortly afterwards and begged the doctor to "do something for her." His wife at the time was in Kingston, and he took the patient to his own bedroom. He found placenta prævia, and according to his own story tried first to stop the hæmorrhage, and then changed his tactics and tried to empty the uterus in order to save the girl's life. In spite of all his efforts the symptoms went from bad to worse until the girl died. He evidently became dazed and crazed, thought he must get rid of the body, and "commenced to cut it up." He remembers but little of what happened during the hours following, but remembers that he carried the body down to the cellar. He denied positively any intention of performing an illegal act.

Mr. Justice Sutherland in his address to the jury said: "If Robinson performed with reasonable skill all that a doctor should do under the circumstances, and was performing what he considered was a necessary operation he was not committing an unlawful act. Three verdicts were possible, murder, manslaughter and not guilty."

The jury after an absence of two hours and a half returned with the verdict "not guilty."



## NATIONAL SANITARIUM ASSOCIATION

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The new building which will in future be the headquarters of the National Sanitarium Association at 223 College Street, corner of Ross Street, Toronto, was formally opened by His Honour, Lieut-Governor Hendrie, February 7th. Among the other speakers were Premier Hearst, Mayor Church, Medical Officer Dr. Hastings, Dr. N. A. Powell, etc.

The building has accommodation for the main offices of the association, board room for the trustees, free dispensary, examination rooms for the tubercular poor, rooms for the examination of private patients, headquarters for the chief officers, accommodation for the Samaritan Club, which, under the guidance of Miss Julia Stuart, is doing so much good work for the tubercular poor of Toronto. There is also an X-rays room and a lecture room for demonstrations of many kinds, as well as clinical lectures.

The building was erected at a cost of \$100,000, and is a gift to the association by its Chairman, Mr. W. J. Gage, who also gives the sum of \$10,000 to be devoted to scholarships.

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## SMALLPOX IN ONTARIO

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It would appear that smallpox is rapidly regaining its hold in Ontario despite the efforts of the Provincial health authorities to prevent it. The local health officers in many places appear to be sadly negligent in their duties. In January, 1914, there were 78 cases in the Province and in January of this year there were 170 cases. Cases occurred in over a third of the counties of Ontario, namely, Brant,

Elgin, Essex, Haldimand, Hastings, Lambton, Middlesex, Muskoka, Nipissing, Norfolk, Oxford, Parry Sound, Perth, Thunder Bay, Waterloo, Wellington, Wentworth and York. Many of the cases happened in Indian Reserves. The outbreak was especially severe in the Six Nations Reserve near Brantford.

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### THE MEDICAL PROFESSION AND ADVERTISERS

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*The Journal of the American Medical Association* in its issue of January 30th, called attention to a very important matter in connection with the medical profession, and a way which has been used by the exploiters of proprietary medicines for the purpose of introducing their preparations to the public. It says that one of the methods to put a "patent medicine" on the market is to call it "an ethical proprietary," advertise exclusively in many medical journals, distribute samples to the medical profession; such samples are sent in packages containing in their cases printed information to be read by the public. These firms can for a time and do advertise in the medical journals, whose advertising rates are much less than those of ordinary newspapers.

After a time physicians awaken to the fact that each preparation is simply a nostrum and a coolness arises between the physicians and the manufacturers. The latter then come to the public press.

A remarkable letter was recently received by an American advertising man from a German firm that wanted to place a medicinal product on the American market. Here is one paragraph: "We beg to mention that the preparations are to be puffed in the first rank and principally so that the doctors get

acquainted with the same. It is not necessary to puff them *for the present* among other classes of the public." We have italicized the three words that have a special significance. Put more crudely, the proprietors say—advertise it exclusively to physicians, and after they have brought it widely to the attention of the public, then it will be time enough for us to advertise it direct to the public. The article concludes by asking: "How long is the medical profession going to retain its unfavorable distinction of being a huge advertising agency for the nostrum exploiter?"

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### THE CHIROPRACTIC BILL

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Another effort has been made to introduce legislation in the interests of the Chiropractors of Ontario. A proposed bill was discussed very briefly in the Private Bills Committee, and promptly "thrown out."

The bill aimed to give the profession of chiropractice professional standing by establishing a college and requiring those proposing to practise to meet the requirements of the "college." In support of the measure it was pointed out that at present there is no check upon untrained persons posing as chiropractors, and that some restraint was necessary in the public interest. A. H. Musgrove, of North Huron, and Col. Atkinson, of Norfolk, favored the bill.

But Hon. I. B. Lucas and the rest of the committee thought differently. J. Wesley Johnson, of West Hastings, denounced the bill in vigorous terms, while Dr. Forbes Godfrey and Dr. Musgrove, of Niagara Falls, both declared that the chiropractors



should not be allowed any short cuts to medical standing. The Attorney-General put the measure out of court by declaring that the Government was distinctly against making any departures until the whole subject of unrecognized cults had been considered by a commission. There was, therefore, no use in discussing the merits of the bill.

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### **TORONTO UNIVERSITY BASE HOSPITAL**

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We understand that the Base Hospital to be furnished by the University of Toronto was finally accepted by the War Office about the end of February. The hospital will consist of 1,040 beds. The staff controlling it will be composed of one Colonel, four Lieut-Colonels, eight Majors, twenty-six Captains, two Quartermasters, four Officers, two Matrons and eighty-four Nursing Sisters, and 284 non-commissioned officers and men. The Government will grant the necessary equipment, but would make no provision for laboratories. As laboratories are, of course, of great importance, the authorities of the University have asked the public to subscribe about \$25,000 to equip the laboratories, which must come into existence.

The officers mentioned at the time of writing are:

Administrative Staff—Lieut.-Col. J. A. Roberts, F.R.C.S., commandant; Major W. B. Hendry, second in command; Capt. N. J. L. Yellowlees.

Surgical Staff—Drs. A. Primrose, W. McKeown, J. Malloch, E. S. Ryerson, G. E. Wilson, R. Gaby, F. W. Watts, J. G. Gallie, H. Wookey.

Medical Staff—Drs. A. R. Gordon, Graham Chambers, D. McGillivray, H. C. Parsons, D. King Smith.

C. S. McVicar, G. F. Boyer, S. R. D. Hewitt, R. G. Armour, J. H. McPhedran.

Nose and Throat—Dr. Gilbert Royce.

Eye—Dr. W. E. Lowry.

Genito-Urinary—Dr. Robin Pearse.

Sanitation—Capt. J. A. Amyot.

Laboratory Staff—Drs. Duncan Graham, N. C. Sharpe, A. A. Fletcher, C. J. Imrie.

Dental Surgeon—Dr. George Gow.

Two or three other appointments or substitutions may yet be made.

We understand that among those named two only were in service during the South African War. Dr. Roberts, who will probably be at the head of the Base Hospital, distinguished himself greatly in South Africa. Dr. McVicar, who will probably have the rank of Major in the hospital, was also at South Africa. He had the misfortune to be seized with typhoid fever while there and had to remain in the hospital for some little time after the main body of the troops left for England.

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### ONTARIO MEDICAL ASSOCIATION

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We sincerely hope and have reason to believe from reports received that the coming meeting of the Ontario Medical Association, which will be held in Peterboro' next May, will be in nearly all respects successful. Our only reason for using the word "nearly" is the fact that a number of our active members, who would certainly have attended this meeting will at that time be serving their country at the front. All honour to the men who are going, let no one throw the slightest obstacle in the way of any of them. It

happens so far as we can judge at present a large majority of our members will still be left in Ontario. There will be certainly enough to make a very large meeting.

As we have before intimated we think we are voicing the opinions of the physicians of Toronto and those in nearly all other parts of Ontario, when we say that we are pleased at the prospect at going to the fine inland town of Peterboro. The doctors of Peterboro and the neighborhood gave us one of the kindest and strongest invitations to hold our meeting of this year in that city. We learn that the local men have been untiring in their efforts to prepare for us a very warm welcome.

During the same week the meeting of the Ontario Medical Health Officers will be held under the Presidency of Dr. Hall, of Chatham. It is hoped that a large number of the Medical Officers of Health, whose meeting will come before that of the Medical Association will be able to remain for the latter meeting. In the former days the Ontario Medical Association was second to none in Canada in either strength or numbers. Since our relations with the Canadian Medical have become cordial and pleasant we think the two Associations should march along together in such a way that each will assist the work of the other.

Below will be found the provisional programme:

Tuesday, May 25—Registration.

Wednesday, May 26—Morning—Registration.

Afternoon—General Session. Business Meeting.

Evening—General Session. President's Address. Address in Medicine.

Thursday, May 27—Morning—Sectional Meetings.

Afternoon—General Session. Business Meeting. Address in Surgery.

Evening—General Session. Symposium on Heart.



Friday, May 28—Morning—Sectional Meetings.

Afternoon—General Session. Business Meeting.

The following contributions have been promised:

General Sessions.—

I. Address in Medicine, by E. C. Rosenow, Chicago—"Variations in Streptococci and their Elective Localizations in Man and Animals."

II. Symposium on Heart:

1. "Recent Physiological Findings in Heart Disease." T. G. Brodie.
2. "Syphilis of the Heart and Aorta." A. McPhedran.
3. "Auricular Fibrillation." A. R. Gordon.
4. "Treatment of a Fever Heart." H. B. Anderson.

III. Address by Adam H. Wright, Toronto—"Medical Education, Specialties and Fee-Splitting."

Sectional Meetings.—

I. Section in Medicine:

1. "The Relation of the Mental Hospital to the General Practitioner's Work." Harvey Clare, Toronto.
2. "Pyloric Stenosis—Diagnosis and Treatment." Alan Brown, Toronto.
3. "The Relation of School Children to the Tuberculosis Campaign." J. H. Holbrook, Hamilton.
4. "Serum Therapy." W. Goldie, Toronto.
5. "The Use of Radium and Trichloracetic Acid in Dermatology." W. H. B. Aikins, Toronto.
6. "Observations on Blood Pressure." Dr. Emmerson, Goderich.
7. "Exophthalmic Goitre." Dr. D. Smith, Stratford.
8. "Clinical Manifestations of Cerebro-Spinal Syphilis." T. G. Phillips, Cleveland, O.

Papers have also been promised by Drs. Lyman, Ottawa. W. L. Bray, Raybrook Sanitarium, and J. W. Campbell, Kingston.

II. Section in Surgery:

1. "Some Observations on the Direct Transfusion of Blood." A. Primrose, Toronto.

2. "Tendon Fixation in Infantile Paralysis." W. E. Gallie, Toronto.
3. "Local and Spinal Anæsthesia." J. R. Parry, Hamilton.
4. "The Saccular Theory of Hernia." Dr. Etherington, Kingston.
5. "Simple Goitre and its Treatment." F. N. G. Starr, Toronto.
6. "The Treatment of Pott's Fracture." George Wilson, Toronto.
7. "Renal Tuberculosis—its Diagnosis and Treatment." Robin Pearce, Toronto.
8. "The Treatment of Arthritis." Dr. Seaborn, London.
9. "The Principle of the Surgical Treatment of Exophthalmic Goitre." W. J. McDonald, St. Catharines.
10. "Empyema." W. A. Brown, Chesterville.
11. "Surgical Aspects of Neurasthenia." Dr. Fredericks, Peterborough.

### III. Section in Obstetrics and Gynæcology:

1. "Scopolamine-Morphine Narcosis in Obstetrics." J. G. Gallie, Toronto.
2. "Serious Vomiting in Early Pregnancy." K. McIlwraith.

Papers have been promised by Drs. E. K. Cullen, Detroit, J. R. Goodall, Montreal, and Geo. S. Cameron, Peterborough.

### IV. Section in Eye, Ear, Nose and Throat:

1. "The Treatment of Tuberculosis of the Larynx." Dr. Morton, Hamilton.
2. "The Use of the Electro-Magnet in Ophthalmic Practice." R. A. Reeve, Toronto.
3. "The Use of the Broncho-Tracheoscope and Oesophagoscope in Treatment." George Biggs, Toronto.
4. "Case Reports." F. C. Trebilcock, Toronto.
5. "Ocular Manifestations of Disseminated Sclerosis, with Case Report." Colin Campbell, Toronto.
6. "Demonstration of Accessory Sinuses Diseases." Angus Campbell, Toronto.

## EDITORIAL NOTES

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An effort was made in the latter part of January to get increased assistance for the hospitals of Toronto, and especially for the Out-Patients' Department. The Minister stated that it was a lean year, and he could extend little hope of assistance. He acknowledged that the work was praiseworthy, and he hoped to be able to help them some time in the future.

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The following received the degree of M.B. from the University of Toronto early in March: Gerald Allison, Stanley Stafford Ball, Arthur McKnight Bell, M.A., Leeming Anderson Carr, Henry Arthur Cates, John Chassels, Frederick Walter Clement, Richard Collier Coatsworth, B.A., Thomas Harold Crews, Donald Thomas Fraser, B.A., Frederick Russell Gillrie, Morley Edward Gorman, Harold Parrish Hamilton, Maurice Round Helliwell, William Wray Hodge, B.A., Herbert Carl Martin, Athol Alexander Moon, Paul Michael O'Sullivan, M.A., Reginald Paul, Harry Roy Smith, Thomas Harold Douglas Storms, B.A., Stanley Young Walsh, David Edmund Staunton Wishart, B.A.

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A man was summoned to the Police Court in Toronto, March 5th, for exceeding the speed limit with his motor ambulance. He admitted the car was speeding, and said it was a case of life and death, and called on Dr. Roy Smith to give evidence. The latter said the ambulance was carrying a child affected with cerebro-spinal meningitis to the Sick Children's Hospital, and the child was in a serious condition. Magistrate Cohen said it was evidently a case of necessity and allowed the defendant to go. While we appreciate the magistrate's judgment, we doubt the advisability of speeding along the crowded streets in such "cases of necessity." We think that in the vast majority of such cases this reckless sort of speeding is much more dangerous to citizens walking the streets than a few minutes' delay would be to the patient who is being carried to the hospital.



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**NEWS ITEMS**

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One hundred and seventy-eight Peers and one hundred and ninety-one Commoners of Great Britain are at the front.

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The three oldest universities in the United States are Harvard, founded in 1636; William and Mary, founded in 1693, and Yale, founded in 1701.

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The Director-General, Army Medical Service, England, asks for more medical men for active service, because the need for them is acute. Men for "overseas" should not be over forty years of age, but older men will be gladly accepted for home service.—B. M. J., March 13.

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We understand the total number of cases of cerebro-spinal meningitis among the five thousand troops at Exhibition Park Toronto, was fourteen. It is supposed by the medical authorities that in the majority of cases, the men contracted the disease outside. Admirable and successful efforts were made to prevent the spread in the camp. We are not certain at the time of writing, but we have been told that there were only four deaths.

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Dr. Bruce Smith, Inspector of Prisons and Charities for Ontario, sent out the following warning to all institutions under his control, March 5th: "I am instructed to advise you that notification has been received from high authority that agents have been instructed to call on engineers and plumbers at different institutions and factories throughout the Dominion of Canada, asking the institution or firm to try a lubricant of which they will leave a sample in a box. It is reported that this box when opened will explode with great force and do damage to persons and buildings, as instead of a lubricant it contains a very high and powerful explosive. You will inform your officers, engineers and staff of this fact, and if such an agent should call at your institution offering such samples you will endeavor to have him detained, and at once notify the police department and this office by telegram or telephone."

**Relief Belgian Medical and Pharmaceutical Professions**

The following subscriptions are acknowledged by the Treasurer:—Dr. Fred. Montizambert, \$25; Dr. A. D. McKelvey, \$10; Dr. Douglas Storms, \$20; Dr. W. B. Thistle, \$10; Dr. F. L. M. Grassett, \$25; Dr. King and Dr. Green, \$10; Dr. A. H. Perfect, \$25; Dr. Fred Winnett, \$5; Dr. W. J. Clark, \$5; Dr. W. E. Ferguson, \$5; Dr. Robin Pearse, \$5; Dr. McKibbin, \$5; Dr. Bryans, \$5; Hamilton Executive Committee, \$320; Dr. W. H. Lowry, \$5; Dr. J. S. Freeborn, \$10; Dr. C. M. Foster, \$5; Dr. H. L. Anderson, \$2; Dr. W. J. Henderson, 50c.; Dr. J. H. Cameron, \$10; Dr. S. Johnston, \$10; Dr. R. E. Gaby, \$5; Dr. A. Taylor, \$1; Dr. J. E. Elliott, \$5; Dr. J. H. Peters, \$5; Dr. H. A. Griffin, \$5; Dr. P. P. Park, \$5; Dr. Arthur Wright, \$5; Dr. Bingham, \$25; Dr. Shuttleworth, \$10; Dr. Geo. Young, \$10; Dr. Warner Jones, \$5; Dr. P. MacNaughton, \$10; Dr. J. Webster, \$10; Dr. A. C. McClenahan, \$4; Dr. W. M. McKenzie, \$5; Dr. W. M. English, \$10; Dr. Geoffrey Boyd, \$10; Dr. W. L. Bond, \$5; Dr. J. McAlpine, \$5; Dr. J. McCulloch, \$5; Dr. W. T. Rich, \$5; Dr. W. H. Clarke, \$5; Dr. George Boyer, \$5; Dr. Colin Campbell, \$5; Dr. B. A. Campbell, \$3; Dr. Alex. Taylor, \$5; Dr. N. Woods, \$5; Dr. R. C. Cooper, \$10; Dr. T. T. McCrae, \$5; Dr. A. T. Emerson, \$10; Dr. W. Gunn, \$10; Dr. J. W. Shaw, \$5; E.-Weir, \$5; Dr. Chas. Hair, \$10; Dr. A. H. Harrington, \$10; Dr. John L. Davison, \$50; Dr. J. R. McEwen, \$5; Medicine Hat Med. Soc., \$50; Dr. Browning, \$5; Dr. F. J. Burrows, \$5; Dr. G. M. Aylesworth, \$5; Dr. Wm. Faul, \$5; Dr. Donald McKay, \$10; Dr. H. C. Scadding, \$25; Manitoba Exec. Comm., 3rd remittance, \$200; Dr. F. C. Redmond, \$49; Dr. Thompson, \$3.50; Dr. Graham Chambers, \$15; Dr. Andrew Gordon, \$10; Dr. J. A. Oille, \$5; Dr. Yellowlees, \$5; Dr. Hoig, \$10; Dr. T. W. McKay, \$5; Dr. Jas. Moore, \$5; Dr. T. A. Rundle, \$5; Dr. R. Young, \$1; Dr. R. W. Bell, \$5; Dr. Wm. McCulloch, \$2; Sudbury Exec. Comm., \$35; Dr. A. E. Wickens, \$5; Dr. A. E. Ardagh, \$5; Dr. A. R. Harvie, \$5; Dr. W. G. Gilchrist, \$5; Dr. W. C. George, \$5; Dr. J. N. Harvie, \$5; Dr. J. A. Hocking, \$5; Dr. Jas. Moore, \$10; Dr. John Livingston, \$2; Dr. H. D. Livingstone, \$2; Dr. W. E. Dingman, \$5; Dr. A. H. Nicol, \$5; Dr. John Philp, \$5; Dr. Jas. Stewart, \$1; Dr. Oliver Mabee, \$5; Dr. John Malloch, \$10; Dr. A. S. Moorhead, \$5; Dr. Miller, \$10; Dr. W. C. Ryckman, \$5; Dr. F. Woodhall, \$10; Miss Madeline Bell, \$5; Dr. Hess, \$5; Dr. W. Stevenson, \$5; Prof. McPhedran, \$10; Dr.

Calder, \$2; Dr. Chas. Smith, \$2; Dr. Thos. Bradley, \$2; Dr. Robt. McDonald, \$2; Dr. W. J. Hicks, \$2; Dr. M. McDonald, \$2; Dr. Leslie Aiken, \$2; Dr. P. McG. Brown, \$2; Dr. C. L. Taylor, \$50; Dr. J. James, \$2; John Kidd, \$2; Dr. E. M. Copeland, instruments; Dr. Wm. Reid, instruments; Dr. John Dunfield, instruments; Dr. Eccles, instruments; Dr. F. Muligan, absorbent cotton; Mrs. and Miss Webb, instruments; Dr. Adam Wright, instruments, etc.; Dr. Donald Meyers, instruments; Dr. R. W. Buckle, \$2; Dr. W. Marrigan, \$5; Dr. H. Kolyman, \$1; Academy of Medicine, Toronto, Special Committee on Hospital Supplies, Convener, Dr. N. A. Powell, instruments.

In October last the Societe Medicale de Montreal formed a committee to assist the French and Belgian physicians, and this committee has already collected the sum of \$2,600. This may be fairly added to the amount above acknowledged, so that the total subscriptions from the medical profession of Canada to date amounts to \$5,974.25.

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We are told that the Minister of Militia has decided to shoot any contractor who hereafter will make bad boots for the Canadian soldiers. We certainly approve, and hope that he will shoot to kill.

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As we go to press we learn that there is a strong probability that the meeting of the Canadian Medical Association, which was to have been held in Vancouver in July, will be cancelled, owing to conditions caused among the ranks of the profession by the war.



## Personals

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Dr. C. M. Burroughs, who graduated in 1910, is now serving in the Army Medical Corps.

Colonel G. S. Ryerson received a cablegram from his son, Lieutenant A. C. Ryerson, March 1st, stating that on that day he had arrived at Rouen on his way to the front.

Dr. Fred Guest, of St. Thomas, who is connected with the Army Medical Corps, was presented with a purse of gold by the citizens of St. Thomas before he left that city, February 27th. The Elgin Medical Association also presented him with a handsome set of meerschaum pipes.

The members of the Durham Old Boys' Association met at the residence of Dr. Gilmour recently, and Dr. J. L. Hughes, President, read an address in which he referred to the esteem in which Dr. Gilmour and his wife are held. Dr. Gilmour is leaving with his family for Guelph, where he will be in charge of the Prison Farm.

Dr. Norman Gilmore, a graduate of McGill University, son of the Collector of Customs at Brockville, sailed from Brisbane, Australia, immediately after war was declared and enlisted at Durban in the South African Mounted Rifles to fight in German West Africa.

The Marquis of Londonderry, who died of pneumonia last January, was an Honorary Member of the British Medical Association. He was thus honored because of the great interest he took in two meetings of the Association, one in Dublin in 1887 and the other in Newcastle in 1893.

Professor J. C. McLennan, of Toronto University, has been selected by the Council of the Royal Society for election into that Society.

Dr. W. J. Charlton was elected Mayor of Weston on New Year's Day. A protest was entered by Dr. E. F. Irwin, the defeated candidate, because Dr. Charlton did not resign his

seat on the School Board until after the nomination. He should have resigned at least ten days before the nomination. Dr. Irwin in his motion claimed the seat by acclamation. The election was declared void, but Dr. Irwin did not get the seat. Dr. Charlton was re-elected by acclamation in February.

Dr. Murray Macfarlane, of Toronto, returned from Florida, March 3rd.

Congratulations and kind wishes to Dr. Harold Parsons, of Toronto, who was married March 18th.

Dr. Harley Smith, who was Italian Consul in Toronto from 1901 to 1915, has resigned.

Dr. C. J. Hastings, M.O.H., Toronto, will deliver an address before the New York State Medical Health Society in Buffalo, April 26th.

Dr. John J. Fotheringham, who was prevented from work for three or four weeks by a slight injury to knee, has recovered. His temporary incapacity for work caused great regret among the authorities at Exhibition Camp.

The Hon. Dr. Pyne went to Ottawa March 4th, and unfortunately while in that city had an attack of la grippe, which considerably alarmed his friends. He has, however, made a rapid and complete recovery.

We understand that Dr. D. W. McPherson (Lieut.-Col.), a surgeon of Toronto, for many years connected with Grace Hospital, is now in command of the Manor Hospital, Wiltshire, England.

Dr. Howard Harrison, nephew of ex-Controller Harrison, of Toronto, has been acting as a surgeon on a transport carrying soldiers between France and England since last December. Dr. Harrison graduated from the University of Toronto in 1910.

Dr. H. S. Birkett, Dean of the Medical Faculty of McGill University, delivered an address before the Canadian Club at Hamilton, on "The Medical Unit in the Field."

The Canadian friends of Sir James Barr, of Liverpool, desire to express their deep sympathy with him in the loss of his only son, Lieutenant Tudor Barr, King's Own Hussars, killed on February 23rd.

Lieut. Osler, son of Sir William Osler, is connected with the Shorncliffe Hospital, where Major George Higinbotham, of Toronto, was attended by his old friend from Toronto, Dr. Donald Armour, during the last days of his illness, which ended by his untimely death, which was much deplored by a vast number of people in Toronto.



## Obituary

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### DAVID J. MINCHIN, M.A., M.D.

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Dr. Minchin, of Berlin, died at his home on February 27th, aged 57. He graduated M.B. from the University of Toronto in 1885.

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### VINCENT CUMMING CORNWALL, M.D.

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Dr. V. C. Cornwall, of Omemee, died at his home, March 12th, aged 84. He graduated M.D. from Victoria University, and soon after went to Omemee, where he practised for over forty years.

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### GEORGE WILLIAMS, M.D.C.M.

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The death occurred at the Toronto General Hospital on March 2nd of Dr. George Williams, youngest son of the late Dr. Williams of Allenford, Ontario. He graduated from Queen's University, Kingston, in 1913, and was twenty-five years of age at the time of his death.

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### A. F. A. KING, M.A., M.D., LL.D.

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Dr. King, of Washington, D.C., died at his home, December 13th, aged 74. He is chiefly known in Canada through his "Text Book on Obstetrics" which was for many years the most popular student's book on this subject in America. For many years he was Professor of Obstetrics at George Washington University and at the University of Vermont.

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### THOMAS WESLEY MILLS, M.A., M.D.

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We have to announce with deep regret the death of Dr. T. W. Mills, who died at his home, Maida Vale, London, England, aged 68. He received his Arts education in Toronto and

his medical education at McGill, from which University he graduated M.D. in 1878. He was possessed of great ability and had a widespread knowledge of many departments of science. He was for many years Professor of Physiology in McGill University.

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### **WILLIAM ERNEST BROWN, M.D.**

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We learn from the *Toronto World* that a sensation was caused in Peterborough, Ont., by the suicide of Dr. Brown of that city, March 2nd. He had been arrested that afternoon charged with murder following the death of Helen Brown, aged 13, on February 24th, after an illegal operation. After being arrested he called for his solicitor, and after making his will he swallowed a dose of strychnine in the police station. He graduated M.D. from Trinity University in 1891.

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### **WILLIAM BRITTON, M.B.**

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One of the most influential and highly respected physicians of Ontario was Dr. William Britton, of Toronto. He graduated M.B. from the University of Toronto, 1875, and shortly afterwards commenced practice in the city of Toronto, and soon achieved great success. We have known no general practitioner who gained more quickly the almost universal respect of the profession and the public of our city, and fortunately he retained it so long as he was able to remain in practice.

Among his well-earned honors was the Presidency of the Ontario Medical Association. We knew him well there, but remember more in connection with his career as a member of the Ontario Medical Council from the years 1890 to 1906. During those sixteen years he had the honor of serving his Alma Mater, the University of Toronto, in that body, and was president during the year 1900. He was one of the ablest and most influential members in the Council, and was in all respects a very worthy representative of his university, as his great desire at all times was to keep the medical profession clean with high standards both in education and ethics.

His failure in health some years ago caused among his friends great grief, which was accentuated when he left Toronto

about three years ago, seeking for a renewal of his former vigor in the North-West Territory, living in the town of Prince Albert, Saskatchewan. It was hoped from the bright reports received that a marked improvement in his condition would end in the complete restoration to health. He came back to Ontario last autumn, and spent a portion of the winter in Toronto and Bradford. He unfortunately became quite ill early in the year, and gradually sank until his death occurred in the house of his brother-in-law, Dr. Moore. This meant that he died in the house which was occupied by himself during many years of practice. He died on March 11th, aged 63.

It will be remembered that his brother, Dr. C. H. Britton, after several years of successful practice, died at his home in York (East Toronto), January 31, 1912. Another brother, Dr. Frank Britton, is practising in Bradford, the city in which the Britton boys were born and received their preliminary education.

We tender our sincere sympathy to Mrs. Britton, to his daughter, Mrs. Sibbald, of Prince Albert., Sask., to his sisters, to his brother, Dr. Frank Britton, and his brother-in-law, Dr. C. F. Moore.

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### GEORGE VEITCH, M.D.

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Dr. Veitch died at his late residence Port Elgin, Ont., March 17th, aged 55. He graduated M.D. from Trinity University in 1855. His son, Dr. Amber Veitch, is carrying on the practice.

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### ALEXANDER ANTHONY DAME, M.D.

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Dr. Dame, of 863 College Street, Toronto, died suddenly March 24th, aged 68. He was born in Prince Edward County, Ontario, and educated at Queen's University, graduating in 1886. After practising in Jordan, Ont., he came to Toronto in 1889. In 1894 he went to Great Britain, and the Continent, where he did special work, and, returning to Toronto in 1895, he confined his work to diseases of the eye, ear, nose and throat. He took great interest in military matters, commencing at the time of the Fenian Raid, and he was for a long time the regimental surgeon of the 48th Highlanders.



## Book Reviews

*The Extra Pharmacopœia.* By W. HARRISON MARTINDALE, Ph.D., Marburg, Ph.C., F.C.S., and W. WYNN WESTCOTT, M.B., Lond., D.P.H. In two volumes. Edition XVI., 1915. London: H. K. Lewis, 136 Gower Street, W.C.

The continued popularity of this work is attested by the appearance of the 16th edition, which brings the material into conformity with the new issue of the British Pharmacopœia. We know of no publication which contains within its covers so much every day useful information. There is practically a review of the world's literature on therapeutics.

The work is in two volumes. Volume I contains complete articles on Extra Pharmacopœial Chemicals, Drugs and Materia Medica, Vaccine Therapy, Organotherapy, Therapeutic Index and General Index. Volume II deals with Analysis-Clinical, Experimental, Bacteriological, etc., and is to be regarded as more a work of reference. The volumes may be purchased together or separately. They are in truth "a mine of information," and are almost indispensable to one practicing British medicine, be he in Canada or Great Britain.

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*The Acute Abdomen.* By WILLIAM HENRY BATTLE, F.R.C.S., Eng., Senior Surgeon to St. Thomas's Hospital. Second edition. Toronto: Macmillan and Company of Canada. 1914.

The second edition of this admirable series of lectures on acute abdominal disease has recently been issued. It contains some changes, several new chapters and illustrations. The author pays special attention to the operative treatment of the six conditions which may be found. The methods described are usually as simple as possible, and on that account more easily understood. The whole book is splendidly written. The illustrations are clear and easily followed. The book should meet with a wide acceptance, as it will be found to be of special value to both surgeon and general practitioner, who might at any time become compelled to open an abdomen for any of the acute conditions described.

*On the Effects of Volcanic Action in the Production of Epidemic Diseases in the Animal and in the Vegetable Creation, and in the Production of Hurricanes and Abnormal Atmospheric Vicissitudes.* By H. J. JOHNSTON-LAVIS, M.D., D.Ch., M.R.C.S., Eng., L.S.A., Lond., F.G.S., Late Prof. of Vulcanology in the Royal University of Naples, etc., etc. London: John Bale, Sons & Danielsson, Ltd.

Professor Johnston-Lavis is well-known as the prize-winner of the Parkin Essay, the title of which is given now and here presented in book form.

Inasmuch as this essay won the prize of the Royal College of Physicians of Edinburgh, it seems redundant to praise it once more.

We welcome this essay in book form as a masterly exposition of all that was hitherto known and our present knowledge (shorn of all more or less local superstition.) This book will serve as a guide in the further study of Vulcanology.

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*Infant Feeding, Its Principles and Practice.* By F. L. WACHENHEIM, M.D., Attending Pediatrist Sydenham Hospital and Mount Sinai Dispensary, New York City. Philadelphia and New York: Lea & Febiger. 1915.

If one attempts to follow and sift out for oneself the immense mass of literature on infant feeding which is constantly appearing, one is at a loss very frequently to know what to accept and follow in one's own practice. In this most readable volume the whole field of the literature has been reviewed and is presented in a readily available form.

The opening chapters deal with the physiology of infantile digestion and metabolism. Some commonly held opinions will be changed, particularly in regard to the size of the stomach, which the author thinks is much underrated. The subject of breast-feeding and the great importance of persevering with it is duly emphasized. The composition of cow's milk and milk modification is then discussed. The author follows Jacobi's plan of simple dilutions rather than the top-milk method.

The latter chapters discuss the disorders of digestion and the feeding of older infants. The work is concluded with a very complete bibliography. The book will present many new ideas to the graduate of some years, but the reasoning is so

## "Nervous" Children—

The kind that "fly to pieces" at small provocation, that respond over-quickly to ordinary external stimuli which pass unnoticed by the well-poised child—then relapse into a morose or lethargic state—

Such children are often found to be coffee users.

This unnecessary and easily avoidable stimulation in early life, is allowed at a tremendous cost of nerve stability, and doubtless "cripples" the child to a greater or less degree as to mental poise, in later years.

Many family doctors, realizing the deleterious action of caffein-bearing beverages upon the general health and resisting-power when attacked by disease, are speaking out plainly to parents against coffee for children.

Generally this is not a difficult matter to arrange, even where children have already formed the coffee habit. The suggestion to parents that

# POSTUM

—the pure cereal food-drink

—be used instead of coffee is usually followed, and beneficial results begin at once.

**Postum** comes in two forms: **Postum Cereal**—the original form—must be well boiled to bring out its delicious flavour; **Instant Postum**—soluble form—requires no boiling, made in the cup instantly with hot water.

Grocers everywhere sell both kinds; the cost per cup is about the same, and within the reach of all.

## "There's a Reason" for POSTUM

The **Clinical Record** for Physicians' bedside use, together with samples of **Instant Postum**, **Grape-Nuts** and **Post Toasties** for personal and clinical examination, will be sent on request to any physician who has not yet received them.



clear and logical that one can hardly help but be convinced that the author is right in his conclusions.

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*International Clinics.* A quarterly of illustrated clinical lectures and specially prepared original articles. Edited by HENRY W. CATTELL, Philadelphia. Vol. IV. 24th series. 1914. Philadelphia and London: J. B. Lippincott Co.

Seldom have the articles of this well-known quarterly reached such a high level. There are so many of excellent quality that a list of them would be practically the table of contents. But we may mention, without invidious comparison, the essay on "Expert Testimony," by Willetts, and on "Performing an Operation Without Consent," by Bulette. These two articles are excellent and should be read by everyone interested in medical subjects.

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*Fever—It's Thermolaxis and Metabolism.* By ISAAC OTT, A.M., M.D. Professor of Physiology, Medico-Chirurgical College, Philadelphia, etc. Published by Paul B. Hoeber, 67-69 E. 59th Street, New York. 1914.

Professor Ott's work is well recognized on this continent as a masterly review of the historical and present knowledge of the metabolism of the body, especially in fever. To Dr. Ott is due most of the credit for a thorough understanding of temperature regulating mechanisms of the body. This work really is an up-to-date Bibliograph of all the work done on fever and infection.

We can heartily recommend this little work to all engaged in chemical work of metabolism.

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*Transactions of the Congress of the American Physicians and Surgeons.* Ninth Triennial Session held at Washington, D.C. Published by the Congress, New Haven, Conn. 1913.

The 9th volume of the above to hand. The secretary is to be congratulated, and two papers in it are well worth preserving. The president's address by Dr. William C. Gorgas, on "Sanitation at Panama as it relates to Sanitation in the Tropics

# DOLORANT

TRADE MARK REGISTERED

## TABLETS "NATIONAL"

Antipyretic and Febrifuge

WE take pleasure in drawing the attention of the Medical Profession to "**National Dolorant Tablets.**" These tablets are composed of **Salacetic Acid** and our new **Soluble Strychnine.**

Salacetic Acid, as is well known, is made by the action of Acetyl Chloride on Salicylic Acid, and has been extensively prescribed under the names of "**Acetyl-Salicylic Acid,**" "**Salicyl-Acetic Acid**" and "**Aspirin.**"

Many physicians of late have prescribed **Strychnine** in combination with **Aspirin** for the sake of its stimulating effect, but the ordinary Salts of Strychnine do not act simultaneously with the Antipyretic, and do not lend themselves to the correction of the gastric troubles following the use of **Aspirin.**

Professor Alex. B. J. Moore, Dean of the Montreal College of Pharmacy and head of our Central Laboratories at Montreal, has produced an almost tasteless **Salt of Strychnine**, which is one hundred and twenty times more soluble than the alkaloid itself. It produces in the same dose the Strychnine characteristic effects upon the heart and the central nervous system.

The use of this agent in combination with **Aspirin** represented in "**National Dolorant Tablets,**" produces the desired combined effect, and allays to a remarkable extent the gastric disturbances following the use of a combination containing a less soluble Salt of Strychnine.

Free sample supplied to physicians on application.

Put up in Bottles of 100 Tablets

**National Drug and Chemical Company of Canada, Limited**



Generally," renders this volume a classic in itself. The rest of the papers are all by well-known experts in the various branches of medical and surgical science.

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*Defective Children.* MESSRS. JOHN BALE, SONS & DANIELSSON, LTD., of London, are about to issue an important medico-educational work. The volume is edited by Dr. T. N. Kelynaek and consists of a representative collection of studies by twenty-seven well-known medical experts, dealing with the chief forms of defectiveness in children. At a time when everyone realizes the importance of conserving the nation's children such a work should be of special service to all interested in the scientific supervision of child welfare work. The price of the volume will be \$2.25 net. Sole agents for Canada, The Macmillan Company of Canada, Limited, 70 Bond Street, Toronto.



# ABSORPTIVE— ANTISEPTIC—

*Antiphlogistine*  
TRADE MARK

is applicable in every instance where there is congestion, inflammation, tension, pain—and in all wounds (septic, especially) indolent ulcers, gangrene, etc. therapeutic action largely depends.

**Clinical reports of Physicians are authoritative:—**

Antiphlogistine on the gangrenous foot of an aged woman so stimulated the circulation as to result in saving the foot.

Carbuncle, treated with Anti-phlogistine, shows few, if any, failures.

in the practise of one physician.

Another says he saved his own leg—septic phlebitis—by the regular, persistent, application of Antiphlogistine; also relieved rheumatic iritis in three days.

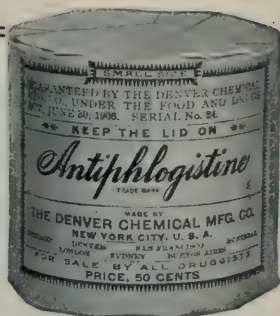
Such evidence, from professional colleagues, is submitted, through professional mediums, to the profession only.

## AN ETHICAL PROPRIETARY FOR ETHICAL PHYSICIANS

Therefore, Physicians should always WRITE "Antiphlogistine" to AVOID "substitutes."

*"There's Only ONE Antiphlogistine."*

THE DENVER CHEMICAL MFG. CO. - MONTREAL



## Miscellaneous.

### The Neurasthenic Invalid

Like the poor, the neurasthenic is "always with us," and while the stress and strain of modern life and living continue, the physician will be called upon to treat the more or less chronic invalid who exhibits all sorts of bizarre symptoms, in endless and kaleidoscopic variety. It is, of course, an easy matter to advise the physician to search out and remedy the operative cause of the disorder, but it is not always as easy to do this, especially when no organic changes are discoverable. While purely symptomatic treatment may be unscientific, it is usually essential, in order to gain and retain the confidence of the patient. There is, however, one pathologic finding in a large majority of cases, and that is anemia of greater or lesser degree. In some instances this may be found to be the essential cause of the neurotic symptoms. In any event, this condition should be corrected, and for such purpose there is no better remedy than Pepto-Mangan (Gude). When a hematinic is indicated for a nervous, cranky man, or a finicky, more or less hysterical woman, Pepto-Mangan is peculiarly serviceable, as the patient cannot consistently object to the taste, which is agreeable to everyone. The digestion is not interfered with in the least, constipation is not induced, and the blood-constructing effect of the remedy is prompt and certain. It is always worthy of trial not only in the anemia of the neurasthenic invalid, but also in all conditions of blood and tissue devitalization.

### The Treatment of Inaccessible Haemorrhage

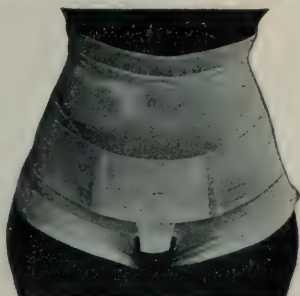
Every physician feels the need occasionally of a reliable agent in persistent hemorrhage that is inaccessible to the ordinary modes of treatment. In Coagulose we have a product that meets this want—meets it better, it is believed, than any agent hitherto employed for the control of hemorrhage due to defective coagulation of the blood. Coagulose is prepared in the biological laboratories of Parke, Davis & Co., from normal horse serum. It is a sterile, anhydrous powder, obtained by precipitation. It contains the fibrine ferment necessary for clotting the blood and is soluble in cold water. It is administered hypodermically (subcutaneously).

# THE STORM BINDER AND ABDOMINAL SUPPORTER

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Modifications for Hernia,  
Relaxed Sacro-iliac Artic-  
ulations, Floating Kidney,  
High Operations, Ptosis,  
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### Local Injections of Iodine in Treatment of Goitre

Tansini regrets that Luton's method of treating goitre has fallen into disuse as he thinks it deserves a better fate. He has had constantly excellent results from it, injecting the tincture of iodine directly into the interstitial or parenchymatous tissue of the goitre. It is indicated, he reiterates, only in the cases of follicular or parenchymatous goitre, that is, only in those in which the thyroid tissue approximates most closely to normal. The disrepute into which it has fallen is the result of applying the method to cystic or colloidal goitres, or those with vascular or fibrous changes; iodine does not act on vessel or fibrous tissue nor on degenerated tissues.

In order to exclude all such cases, Tansini makes an exploratory puncture in case of doubt. Operative measures are better in the mixed cases but sometimes he has found it possible to combine resection of part of the goitre with injection of iodine in the undegenerated regions. He injects a mixture of 20 parts tincture of iodine; 1 part potassium iodide, and 40 parts distilled water, making an interstitial injection of 1, 2 or 3 c.c. at a time, making two or three injections at different points during the same sitting. He repeats the injection at first every second day and then every third or fourth day or at longer

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intervals according to the size of the goitre. He has never had the goitre recur in any of his cases. The intervals since the treatment range from one to several years. The injections are only rarely painful and then there is merely slight pain for a few hours at the point of the injection.—*J.A.M.A.*

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Edward L. Keyes, Jr., in the *J.A.M.A.*, March 6th, concludes:

1. A negative Wassermann is not sufficient evidence of the cure or absence of syphilis.

2. A positive Wassermann, unsupported by clinical evidence, is not sufficient evidence of the presence of syphilis.

3. A positive Wassermann does not prohibit matrimony.

4. A fixed, positive Wassermann in the later years of the disease does not inevitably point to the prospect of grave lesions.

5. A negative Wassermann after salvarsan, in the first year of the disease, does not mean that the patient is cured, or that lesions will not reappear before the reaction again becomes positive.

6. The return of chancre, glands, eruption and positive Wassermann reaction, a few months after control of the disease by salvarsan in its first few weeks, does not prove reinfection.

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### **Intraspinal Medication**

One of the most difficult things in medicine for a practical man to understand is the logic of the intraspinal employment of therapeutic agents.

Some experimenters would have us believe that only in the intraspinal injection of autosalvarsanized serum is a complete cure of syphilis possible. They tell us that spinal syphilis can be overcome only by means of intraspinal injections, that anti-syphilitic agents introduced into the blood stream do not reach the involved nervous tissues, wherefore their uselessness. However, they do not explain how it is that the barrier to drugs in the blood is not also a barrier to syphilitic virus in the blood. If the virus gets through, why not the dissolved drug also?

Another group of men, subscribing to the same belief of the impermeability of the choroid plexus, suggest that instead of using autosalvarsanized serum a small quantity of very dilute



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This form of administering the Formates is one largely in vogue for increasing tone in those who go in for physical exertion, such as athletes and men who are very actively engaged, who are merely run down and not suffering from any illness, but require a sharp tonic. The Formates are also useful in the treatment of Chronic Rheumatism.

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salvarsan solution be injected into the canal. But of these two modes of employing the drug the former seems to be preferable.

Since in those instances in which relief of paretic or tabetic symptoms has been observed to follow the intraspinal use of salvarsanized serum, the organism within a few hours had been given a good sized dose of salvarsan, it is conceivable that the benefit has followed the first dose and not the second. Various arguments against the validity of this are offered by the exponents of the intraspinal use of salvarsanized serum, but they are not convincing.

Even after a year or more of experimental and clinical investigation, the intraspinal injection of whatsoever agents on the ground of the inaccessibility of the spinal fluid to agents circulating in the blood stream occupies a very precarious position.

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**Action of Pituitrin upon Acute Heart Failure and Incompensate Heart Lesions.** By Ernest Zueblin.

(*Boston Medical and Surgical Journal*.) Pituitrin is recommended in acute heart failure with acute dilatation. It seems that pituitrin may be helpful in other pathological conditions of the heart, though he is not ready to recommend it. Thus he has obtained some excellent results in chronic asthma and hay fever through a combination of adrenaline and pituitrin, and has controlled the tympanites of typhoid fever by the subcutaneous administration of pituitrin, when it could not be controlled otherwise. He resorted to the same treatment also in two cases of intestinal hemorrhage in typhoid fever.—*N. Y. Medical Journal*.

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In the treatment of gastric and duodenal ulcers a valuable addition to the well known Leuhartz diet has been found in Bovinine, which consists primarily of beef blood, the biological properties of which have not been destroyed by heat.

A teaspoonful of Bovinine is added to each feeding. The blood serum contained in Bovinine has a direct reparative and mildly stimulating action on the ulcers and at the same time replaces blood which has been lost through bleeding from their eroded surfaces.

# The Canadian Practitioner and Review

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## Original Communications

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### DIFFUSE SEPTIC PERITONITIS \*

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BY HERBERT A. BRUCE, M.D., F.R.C.S., ENG.

Associate Professor of Clinical Surgery, University of Toronto, Surgeon to the  
Toronto General Hospital.

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I need scarcely say that I deeply appreciate the honor you have done me in asking me to address your Association. I have endeavored to select a subject which is of practical importance to all of you, and in which at the same time I have had a considerable amount of personal experience. The subject which I have chosen, namely, the Treatment of Diffuse Septic Peritonitis, seems to me to fulfil these conditions, and I hope that a brief reference to its literature, together with a summary of the conclusions to which I have been led by my own clinical observations, may not prove without interest—and I trust benefit—to you.

The variations in the application of the term "general peritonitis" have led to much confusion, and have greatly diminished the value of the statistics. The results of pathological investigation indicate that in acute infection of the peritoneum general diffusion of the exudate throughout the peritoneal cavity rarely occurs, and that in such cases, more especially those associated with perforative appendicitis, the internal organs, with their ligaments and mesenteric attachments, tend to prevent and delay extension. What may be correctly described as universal peritonitis is extremely rare, and is seldom met with, even on the operating table. In the second place the severity of the clinical course is by no means always proportionate to the diffusion of the exudation, as some of the

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\* Delivered at the Meeting of the Lambton County Medical Association at Sarnia, February 10, 1915.



cases in which the pus is by no means widely diffused run a very severe course, and end fatally in spite of the most careful treatment. A definite separation into localised and general peritonitis, therefore, appears to be a more or less arbitrary classification, and in view of the difficulty of making a definite clinical diagnosis of generalised peritonitis, *diffuse peritonitis* is, in my opinion, a more suitable designation for these cases than general peritonitis. The most satisfactory and practical classification, from the point of view of statistics, is to separate the cases which come to operation into the early and late stage, the early stage including those operated upon within the first forty-eight—or better still twenty-four—hours after the onset of the attack, and the late stage those operated upon from the third to the fourteenth day or later.

*Ætiology.*—The causes which may be influential in setting up peritonitis are manifold. By far the most common form of septic peritonitis is that associated with disease of the vermiform appendix, and the increase in the knowledge of the pathological anatomy and symptomatology of appendicitis has, therefore, greatly contributed to the reduction in mortality. The next cause in order of frequency is perforation of the stomach or duodenum, the prognosis of operation in both these and the appendicular cases being fairly good, provided operation can be undertaken at an early stage. The peritonitis arising from perforation of a gastric ulcer usually runs a milder course and has a better prognosis than that due to perforation of a duodenal ulcer, owing to the fact that the acid reaction of the gastric contents tends to arrest the development of the infective agent.

Other conditions which may result in peritonitis are perforation of the intestines from typhoid or other cause, perforation of the gall bladder, wounds of the abdomen involving the digestive tract, and infection extending to the peritoneum through the Fallopian tubes. The most severe forms of peritonitis are those associated with spontaneous rupture or traumatic perforation of an abdominal viscus, and those originating from the appendix, both of which rapidly become generalised, the diffusion of the infective material being especially rapid in perforation of the stomach or intestines. Everything, therefore, depends in such cases upon the promptness with which operation can be undertaken.

In considering the peritonitis originating from perforation of the gall-bladder, which is usually assumed to be extremely

grave, a distinction should be made between that due to perforation of a gall-bladder, the contents of which may be regarded as sterile, and that originating from perforation of a gall-bladder containing pus. The former is comparatively benign, whilst the latter is an extremely malignant and dangerous condition. The prognosis is also influenced by the fact that the bile appears to have an unfavorable effect upon the serosa, considerably reducing its capacity for resistance to the invading micro-organisms. The same may be said of the contents of the small intestine, after perforation of which the peritoneal serosa exhibits severe changes.

Several writers, including Clairmont and von Haberer,<sup>1</sup> have from time to time reported cases in which peritonitis supervened without perforation of the gall-bladder, and the condition has been attributed to an abnormality in the macroscopically intact walls of the biliary duct, due to various causes, including biliary stasis, gangrene of the bladder, non-perforating traumatism and infection. Cases of diffuse septic peritonitis originating from acute pancreatitis without any visible perforation have also been reported, the peritonitis being practically universal. Cases of diffuse peritonitis, associated with acute appendicitis without perforation of the appendix, are not infrequently met with. Three cases of paratyphoid peritonitis have recently been reported, in none of which could a perforation be discovered. In these cases it may be assumed that the peritonitis was due to the penetration of the bacillus through the macroscopically intact intestinal wall.

In regard to gonorrhœal peritonitis a distinction should be made between that due to rupture of or leakage from a sterile pyosalpinx, and that due to rupture of a pyosalpinx containing active gonococci or streptococci.

In the former case recovery may be due to one of the following conditions:—(1) The disappearance of the germs, more especially streptococci, in anaërobic cultures; (2) impairment of the vitality of the gonococci by the action of the toxins which they produce, and which ultimately render them innocuous. The course in such cases is comparatively benign, and tends towards retrogression and recovery. Many such cases recover with rest only, and this may possibly explain the good results which have sometimes been reported from the internal treatment of peritonitis.

In the second form of gonorrhœal peritonitis we are dealing with an acute, virulent, diffuse peritonitis, due to leakage from

or rupture of a tube recently infected by the gonococcus, and the condition produced is, therefore, much more grave, and much more likely to run an unfavorable course, as the germs, whether gonococci alone or gonococci and streptococci, immediately find a favorable medium for growth in the toxic contents of the pyosalpinx. This second variety of gonorrhœal peritonitis is illustrated by the case of a patient who came under my observation some years ago.

She was a young married woman of twenty-six, who was infected by her husband. Two weeks after infection she developed a pelvic peritonitis, which in two days had become diffused throughout the abdomen. On the third day she was acutely ill, with intense rigidity of the entire abdomen, a temperature of 105 degrees F., and a pulse of 140. The abdomen was opened and drained. Her symptoms were septicæmic, and she died three days later.

I should like to refer briefly to pneumococcal peritonitis, which is a very rare condition. It may be primary or secondary, and occurs more often in women than in men. Cases of pneumococci peritonitis not infrequently develop septicæmia. The following points may be of assistance in making the diagnosis, which is sometimes obscure. Pneumococcal peritonitis is distinguished by the fact that the symptoms are of a fulminating character from the beginning, prodromal signs are completely absent, and diarrhœa and a high temperature are invariably present.

Formerly we were accustomed to hear of post-operative peritonitis, but this should never be allowed to occur. Scrupulous attention to technique, and above all the covering of the hands of the operator with rubber gloves during operation, has added greatly to the safety of peritoneal operations. By substituting asepsis for antisepsis the defences of the serosa are preserved in their integrity. The perfection to which technique has now been brought prevents the entrance into the peritoneal cavity of germs from the digestive tract, the tubes or the ovaries. This includes the carrying out of the greater part of the operation before the opening of the septic cavities, reduction to a minimum of the time during which they are open, and exact limitation of the field of operation.

*Bacteriology.*—The results of the extensive investigations which have been carried out in this connection have, up to the present, not revealed any specific micro-organism which invariably sets up peritonitis. They indicate that in the majority



of cases a mixed infection is present, and there is no evidence to show that any one micro-organism is more often responsible than another. In the rare cases of pure streptococcal and pneumococcal infection severe constitutional symptoms appear to be infrequently, if not invariably, associated with a slightly abnormal appendix without perforation or gangrene. Such cases also seem to have a higher mortality than other varieties of peritonitis, more especially cases of pure *Bacillus coli* infection, in which the encapsulated form of peritonitis is more commonly observed, together with gangrene and perforation of the appendix. It, therefore, appears possible that streptococci and pneumococci may possess greater power of penetration, and thus be capable of reaching the peritoneum without producing severe changes in the appendix. The rarity of mono-infection has resulted in the attempt to classify peritonitis bacteriologically being more or less a failure.

*Symptoms and Diagnosis.*—The clinical picture of diffuse septic peritonitis varies considerably, as the majority of the symptoms may be present or absent in individual cases. The following are the most important symptoms:—

1. Abdominal pain and tenderness on pressure, at first localised, soon becoming diffused.
2. Muscular rigidity, at first localised, later general.
3. The pinched and anxious expression of the face, known as *Hippocratic facies*.
4. Vomiting, recurring at short intervals.
5. Drawing up of the legs, with the object of relieving pain.
5. Increased pulse rate and elevation of temperature.

The most reliable sign, from the point of view of diagnosis, is the so-called *muscular defence*, or abdominal rigidity, the extent of which renders it possible to distinguish between slight and severe peritonitis. It must be borne in mind, however, that even this symptom may be absent in certain exceptional cases, and that it also occurs in pneumonia. The symptoms next in order of importance are pain and tenderness on pressure. In appendicular peritonitis a history of *perforation pain* is significant, in that it frequently indicates the time of onset of peritonitis. On the other hand Zander<sup>2</sup> has observed several cases which indicate that a sudden cessation of previously existing pain almost certainly points to peritonitis. The condition of the pulse and temperature are not reliable signs as to the extent or severity of the peritonitis. In some very severe cases the

pulse rate is under 100, and the temperature is raised only one or two degrees, whereas in slighter cases the pulse rate may be increased to 110 or 120, and the temperature be as high as 103 degrees. Whilst peritonitis *may* be present, however, when there is only a slight increase in pulse rate and a slight rise in temperature, a very high temperature and a very rapid pulse rate naturally indicate a severe form of the disease. In the late stage the clinical picture of peritonitis often resembles that of intestinal obstruction.

In peritonitis due to rupture of the intestines the character of the rigidity may be a valuable guide, as that due to contusion of the muscles alone usually disappears within a few hours. In such cases immediate operation should be undertaken if the following conditions are present:—Severe abdominal pain persisting for more than six hours, if accompanied by vomiting, especially bilious vomiting, a rising pulse, progressive localized rigidity, and deep local tenderness on superficial respiration.

In the peritonitis of perforating gastric or duodenal ulcer, there is usually in the first place localized epigastric pain, often associated with pain referred to one or both shoulders. This is usually accompanied by profound shock, the patient frequently breaking out into a cold perspiration. The scaphoid and rigid abdomen is one of the most characteristic signs of peritonitis. When severe distension supervenes it indicates a stage of peritonitis so advanced that recovery can scarcely be expected to result from any form of treatment.

If the symptoms and signs lead us to the conclusion that some form of peritonitis is present, we must next endeavor to discover its source of origin. In this connection the history given by the patient is often of great value. Thus in perforation of the stomach the patient generally states that pain was first felt in the epigastric region, and the point of maximum tenderness is found to be over the site of the perforation. This also applies to the duodenum and gall-bladder, but their near neighborhood may render it more or less difficult to decide as to which of them is the seat of the lesion. If, on the other hand, the appendix is responsible for the peritonitis, the early pain will be localized at a much lower level, and tenderness on pressure and early rigidity will be most marked over the site of the appendix.

*Prognosis.*—A very important factor in the prognosis after surgical interference is the defensive reaction of the peritoneal serosa, which renders it possible for it to deal with a consider-

able amount of septic material. Prognosis is also obviously more favorable if operation is undertaken before the onset of toxæmia, and before the resistance of the patient is seriously impaired. Rutherford Morison<sup>8</sup> states that the prognosis is good if the heart is strong, the pulse of good volume and not over 100, but that it is invariably bad if cyanosis is present, the extremities are cold, and the pulse is over 120. The chief factors which influence the prognosis are the degree of peritoneal toxæmia, the severity of the primary disease, and the time which elapses between its onset and the operation.

There has recently been a considerable amount of discussion as to whether all cases of peritonitis should be operated upon or not. Some are of opinion that if there is little or no hope of saving the life of the patient relief of pain only should be attempted, whilst others maintain that it is absolutely impossible to be certain that recovery may not follow operation, even when a patient is apparently moribund. It must be said that there are cases of ultra-septic infection of the peritoneum in which operation is practically useless. These cases run a rapid course, and the defensive reaction of the peritoneum is so slight that they may be described as septicæmia rather than peritonitis. Even in these desperate cases, however, operation is indicated if it represents the only chance for the patient, in spite of almost invariably fatal results, and in some of these cases, operated upon by me when the patient was practically *in extremis*, recovery has resulted. It cannot be too strongly emphasized that delay in operation is responsible for most of the fatalities which occur. In cases which are too far advanced to allow of the removal of the cause of the peritonitis, a certain amount of relief may follow drainage of the abdomen by means of one or two small incisions.

*Treatment of Peritonitis.*—Prophylaxis is a very important part of the treatment of peritonitis. The general prophylactic treatment consists in the early diagnosis of conditions which may lead to peritonitis, and the removal of the source of infection with as little delay as possible. Mortality has recently been very much reduced by the early recognition of appendicitis, which is by far the most common cause of peritonitis, and the removal of the appendix before the inflammation has extended to the peritoneum. In the rare cases in which the onset of peritonitis is coincident with perforation of the diseased appendix, disease of which has previously been latent as regards the production of symptoms, operation should be undertaken before



inflammation of the serosa becomes very severe and extensive. The view is now generally accepted that if possible every case of acute appendicitis should be operated upon within a period of twenty-four hours after the onset of the attack, and that early operation is the chief factor in the reduction of mortality and the prevention of severe complications, such as diffuse peritonitis. It is highly desirable to diagnose appendicitis before peritonitis has set in, and with the improved means of diagnosis now at our disposal it is usually possible to do this. I should like here to emphasize the importance of a very rapidly performed operation, carried out without undue shock to the patient. A diagnosis of the probable cause of the peritonitis should be made before the commencement of the operation, and during the operation it should be dealt with as promptly as possible.

All surgeons are now agreed that operation is invariably indicated in all cases of diffuse peritonitis. This general consensus of opinion, together with the improved technique of operation and methods of after treatment, have greatly contributed to the reduction in mortality. Early operation has frequently\*revealed the presence of advanced peritoneal inflammation and purulent exudation in cases in which the only symptoms were localized pain and rigidity. In peritonitis due to rupture of the intestines the symptoms may be very indefinite, and their onset is frequently delayed for some time after perforation has occurred. In such cases rigidity, which is as a rule the most characteristic symptom of peritonitis, may be completely absent. I should like most emphatically to express the opinion that under such circumstances morphia should never be given until the diagnosis is made and a definite plan of treatment decided upon. As morphia relieves the pain, it may lead to the delay of the operation for several hours, or even indefinitely. This delay will naturally result in increase of the toxæmia, and if sufficiently prolonged will make it impossible to perform an operation with much prospect of success.

Surgery is the only treatment for typhoid perforation peritonitis, and recovery is usually dependent upon operation being undertaken soon after the occurrence of the perforation. In the more severe forms of gonorrhœal peritonitis operation may be performed with a favorable prognosis if no germs are present in the blood, but otherwise death is practically certain, whatever the treatment employed. At the same time no case of acute gonorrhœal peritonitis should be allowed to die with-

out being given the chance of operative cure, and if there is no improvement in the general and local condition in the course of a few hours, operation should be undertaken without delay.

The only exception to the rule of early operation is pneumococcal peritonitis, in which it is advisable to delay operation until an abscess has formed, as fatal results have frequently followed surgical intervention at an early stage. There is a tendency to encapsulation, and to limitation of infection by the formation of adhesions. The treatment consists of incision and drainage.

The peritonitis resulting from wounds received in battle is naturally exciting a considerable amount of interest at the present time. Beavis and Souttar<sup>4</sup> have recently published a report in the *British Medical Journal* in regard to the conditions prevailing in the British Field Hospital in Belgium. In dealing with abdominal wounds they point out that, whilst in the South African war the intestines frequently escaped injury altogether, or the lesions were limited to minute punctures, in the present war extensive laceration of the intestines is the rule, and in most cases the intestine is cut almost or completely across. Even if this does not occur the punctures represent large ragged holes. The result is that spontaneous recovery is possible only in very few cases of this kind. When brought to the hospital most of the patients are suffering from shock, and for this preliminary treatment is given, consisting of morphine, saline infusions, and injections of coffee and brandy, operation being performed half an hour later. Their experience indicates that in no case, even the most desperate, is there not a chance of recovery, the results being especially encouraging in cases operated upon within six hours. They have never seen a case of intestinal injury recover without surgical treatment, and are of opinion that it is invariably indicated, and in fact imperative. The risks of laparotomy are trifling as compared with those incurred by delay.

*Technique of Operation.*—As regards the incision, if a diagnosis has been made, it is of course made over the site of the primary lesion. In doubtful cases it should be made in the middle line, immediately below the umbilicus. If this reveals no lesion, it is easily prolonged in an upward direction, so as to expose the stomach, duodenum and gall-bladder. If after making a median incision the appendix is found to be responsible for the trouble, a second incision is made on the right side if necessary. During the operation the patient should be

kept warm and unnecessary manipulation of the intestines avoided. The details of the technique are of far less importance in relation to the results than the time which has elapsed since the onset of symptoms.

Amongst the most influential factors in the improvement of the results of operation are:—

1. The general adoption of Fowler's semi-sitting position, which facilitates drainage of the peritoneal cavity.
2. The injection of large quantities of saline solution; either by the subcutaneous or transrectal method.
3. Lavage of the stomach.
4. Reduction of the duration of the operation to a minimum, and consequent avoidance of unnecessary shock.

The objects of operation are:—(1) Removal of the primary source of disease, from which the peritonitis has originated, *e.g.*, a gangrenous or perforated appendix, or closure of a perforation; (2) To provide for drainage. Suitable provision for drainage tends to prevent the further resorption of infective material into the blood, whilst the resulting reduction of intra-abdominal pressure facilitates respiration and circulation. With the object of increasing the rapidity and simplicity of the operations some writers have recently recommended that under certain circumstances the removal of the cause of the peritonitis should be abandoned, but it is still the general opinion, in which I concur, that the appendix should be removed in practically all cases of appendicular peritonitis, and all pus pockets broken up, the operation being carried out with the least possible manipulation of the peritoneum.

*Toilet of Peritoneum.*—The question as to how the exudation shall be dealt with after the cause of the peritonitis is removed has given rise to a considerable amount of discussion, the alternatives suggested being as follows:—

1. That it should be left in the peritoneal cavity.
2. That it should be flushed out.
3. That it should be mopped out.
4. That flushing should be practised in some cases, mopping in others.

In deciding as to the respective merits of the moist and dry methods of cleansing the peritoneal cavity it is of the utmost importance that the characteristics of the normal and pathological serosa should be fully appreciated. Its defensive reaction in regard to infection has been demonstrated. The great omentum, which is very movable and abundantly supplied with



lymphatics, plays an important rôle in the defence of the peritoneum, as does also the natural tendency, which is present in many instances, for the inflammation to become encysted. One of the great advantages of the dry method, as compared with that of flushing out the peritoneal cavity, is that it occupies much less time, and thus tends to minimize shock.

The old plan of treatment consisted in flushing out the abdomen, and as a matter of fact some surgeons went so far as to practise evisceration in order to accomplish this more thoroughly. These severe measures need only be mentioned to be condemned, as the injury thereby inflicted upon the delicate peritoneal endothelium tends to increase its capacity for resorption, and thus to produce a profound toxæmia, a condition which has been assumed to be largely responsible for the frequency of fatal ileus. A more favorable medium is also produced for the growth of pathogenic bacteria. In addition it is, in the majority of cases, impossible to decide whether the peritonitis is universal or not, and if it is not flushing is practically certain to produce more extensive diffusion of the exudate.

In my opinion the one essential point is that the primary cause of the condition should be removed with as little delay and injury to the peritoneum as possible, and with a minimum amount of narcosis. As the exudation itself possesses bactericidal properties, and is therefore an important factor in defence, it appears inadvisable to attempt its removal from the peritoneal cavity. In addition its complete removal can scarcely be accomplished without trauma. I therefore abandoned the practice of flushing out the abdomen many years ago. Neither am I in the habit of mopping out the pus, but my object in these cases is first of all to remove the cause of the peritonitis, and secondly to provide adequate drainage. It seems reasonable to assume that flushing and mopping tend to reduce the protective forces of the serosa, as represented by the leucocytes, and that it is better to leave the toxic material, which still remains in the cavity, to be dealt with by the natural resistance and resorbent capacity of the serosa. The fibrinous or fibrinopurulent deposits, which are in some cases observed on the intestines, should also not be interfered with.

Some surgeons, however, still maintain that great service is rendered to the organism by removal of as much of the septic material as possible, and think that whilst flushing is suitable in some cases, mopping is preferable in others. Most of the advocates of flushing reserve it more or less for cases in which the peritonitis has reached an advanced stage before operation.

*Drainage.*—The question of effective drainage of the peritoneal cavity is complicated by the fact that in the course of a few hours fibrinous exudation occludes the orifices of the drainage tubes. Drainage therefore continues only for a short time, about twenty-four hours being the maximum period. If the exudation is comparatively thick, and contains large quantities of fibrin, the time during which effective drainage persists is proportionately shortened, as extensive adhesion of the coils of intestine soon transforms the peritoneal cavity into a series of isolated cavities, which it is impossible effectually to drain. The most effective drainage is attained by means of a tube inserted into the pelvis. Cigarette drains appear to be the most suitable, but these, in common with other varieties of gauze drains, tend to become occluded and ineffective within a short time.

My own practice is to use a combination of cigarette drains and soft rubber tubes. When operating in a case of septic peritonitis due to appendicitis a cigarette drain is put down to the site of the appendix, and then a suprapubic opening is made, and a split rubber tube, containing a small piece of iodoform gauze, inserted down to Douglas's pouch. In early cases a cigarette drain is passed down from the iliac wound, along the side of the pelvis, and into Douglas's pouch, without making a second incision. This method is undoubtedly sufficient in many cases, and with this small amount of drainage there should be less likelihood of troublesome adhesions. In more severe cases, or those in a later stage, in addition to this a cigarette drain is passed from the iliac wound upwards towards the liver.

Some of the more recent writers are ardent advocates of tamponnage, and claim that its use has greatly improved their results. In advanced peritonitis, due to cholecystitis or perforation of a gastric ulcer, it is sometimes advisable, in addition to the tamponnage, to drain the true pelvis through an incision in the lower part of the abdomen, vagina or rectum. Drainage appears to continue for at least forty-eight hours after incision of the tampons, and the irritation produced by them increases secretion and local leucocytosis.

The general rule that drainage tubes should be left in position until secretion ceases, or has at least appreciably diminished, is not applicable to diffuse peritonitis. It is a difficult question to decide how long drainage should be continued in any given case, owing to the fact that purulent secretion persists almost as long as the drain remains *in situ*, indicating a possibility that

its presence may contribute to the continuance of the suppuration. It is advisable that the drainage tubes should be frequently changed, the tube inserted on each successive occasion being of smaller calibre than the one preceding it. In this way secretion is gradually reduced without mechanical irritation, and contraction of the granulating canal is rendered possible, without sudden occlusion of its orifice.

In certain rare cases drainage may be unnecessary, and some surgeons have even gone so far as to recommend and practise primary closure of the wound in cases in which the peritonitis is not very far advanced, and the septic contents of the cavity are not very toxic in character. Whilst the advantages of complete closure cannot be denied, in that it facilitates post-operative treatment, it appears to be suitable only to very early cases, the only exception to this rule being in comparatively late cases complicated by pregnancy.

*The Fowler Position.*—The elevated position of the head and trunk, known as the Fowler position, was first recommended by Fowler in 1900,<sup>5</sup> and has since been generally adopted. It has proved very valuable in practice from a clinical point of view, and is assumed to be the chief factor in the successful results of operation. It considerably facilitates drainage, the fluid tending to fall into the pelvis, the serosa of which absorbs less than that of the subdiaphragmatic region, and it also facilitates respiration. A study of the statistics shows that it has greatly reduced the mortality of peritonitis. The patient is usually placed in the Fowler position immediately after operation, but many surgeons are now so convinced of its efficacy that they recommend that when patients suffering from any acute abdominal condition are being taken to the hospital they should be placed in a semi-sitting position, should remain in this position until the operation, and after the operation until all danger is past. Some surgeons, including Mr. H. J. Paterson,<sup>6</sup> claim that it has greatly reduced the frequency of subphrenic abscess.

In order to facilitate the maintenance of the Fowler position I have during the last few years been using a Gatch bed, which I have found of the greatest possible value. It not only ensures the patients' being kept in the Fowler position, but they find it so comfortable that after it has been decided that they need no longer be kept in this position they frequently ask to be allowed to remain on the Gatch bed, as they find it much more comfortable than the prone position, and infinitely more comfortable than sitting up with a back rest and a bolster.



*Post-Operative Treatment.*—An essential part of the post-operative treatment of peritonitis is regulation of intestinal function and compensation for loss of body fluids. The method which up to the present best fulfils these requirements is that recommended by Murphy, which has been adopted by a large number of surgeons. The chief object of his method of proctoclysis is the prevention of peritoneal resorption. The fluid absorbed by the rectum increases diuresis, assuages thirst, and improves the pulse and general condition. He uses a solution of seven grains each of chloride of sodium and chloride of calcium in 1,000 parts of water at a temperature of about 38° C., or 102° F., and finds that nine to ten litres of this solution, entering the rectum in twenty-four hours can be tolerated without inconvenience to the patient. This method of treatment, together with the Fowler position, are the chief factors in the tremendous improvement in the results obtained in the treatment of diffuse peritonitis.

In cardiac collapse intravenous infusion of normal saline, containing a few drops of adrenalin, may be useful, and the same may be said of subcutaneous injections of camphorated oil, ether, caffeine or strychnine. If there is persistent tachycardia, digitalis in small doses or the application of ice on the heart may be beneficial. Turpentine stupes sometimes give relief in cases in which there is marked abdominal distension. Some surgeons, including myself, have had very beneficial results from the use of pituitary extract after operation, and find that it increases intra-abdominal pressure and stimulates intestinal peristalsis.

Grekow<sup>7</sup> is a very ardent advocate of the administration of morphia, and goes so far as to say that in his opinion it is not possible to cure severe peritonitis without it. He recommends that it should be given soon after operation if the patient complains of restlessness or pain, and claims that it gives rest and sleep, relieves pain and the spasm of dynamic ileus if present, diminishes thirst, and stimulates the heart and pulse. The majority of surgeons, however, with whom I am in agreement, think that opiates of any kind are contra-indicated, as they tend to increase already existing toxæmia, prevent peristalsis and leucocytosis, and therefore increase the tendency to paralytic ileus. In my opinion not more than a single dose of morphia should ever be given or is ever necessary, and this for the purpose of relieving the early pain.

*Vomiting.*—My practice is to have the stomach washed out immediately before operation, or at the conclusion of the opera-

tion while the patient still remains under the influence of the anæsthetic, usually the latter, in all cases of septic peritonitis. If vomiting is persistent after operation lavage of the stomach is practised, and repeated until vomiting ceases. The occurrence of acute dilatation of the stomach, a condition which is usually not recognized until too late, and is almost invariably fatal, is thus prevented.

Laxatives should never be administered until after the cessation of projectile vomiting, and it is better to rely upon enemas.

*Continuous Current of Oxygen.*—Weiss and Sencert<sup>8</sup> practise suprapubic drainage, and in order to facilitate it, pass a continuous current of gaseous oxygen through the hypogastric tube. This results in evacuation of the pelvic and peritoneal fluid, and may prevent the formation of adhesions. By this method, of which I have so far had no experience, they have recently obtained four recoveries out of five cases.

*Camphorated Oil.*—Some writers have recommended that camphorated oil should be injected into the peritoneal cavity after operation, with the object of stimulating peristalsis and preventing the formation of adhesions, but it is questionable as to whether this treatment is of any value.

*Bier's Treatment.*—Bier<sup>9</sup> recommends the post operative treatment of peritonitis and other abdominal conditions by hot air. He claims that it favors resorption of exudation, induces early peristalsis, and thus arrests the formation of adhesions. The patient is placed in the Fowler position on removal from the operating room, and a hot air chamber placed over the abdomen, and kept for twenty minutes at a temperature of 120 degrees. A second application is given in the evening, and a third on the following morning, the latter being followed by a rectal injection of glycerin. The treatment is continued for a varying period in accordance with the severity of the case.

*Ochsner's Treatment.*—It should be clearly understood that Ochsner's treatment is not intended to replace surgery, but merely to tide the patient over to a safer period for the performance of an operation.

It aims at increasing the resistance of the patient by building up the general condition, reducing toxæmia and increasing the excretion of toxic material. It consists in:—

1. No food by the mouth.
2. Absolute rest in the Fowler position, or in the dorsal position if the peritonitis is associated with cholecystitis or gastric ulcer.

3. Infusions of normal saline per rectum; nutrient enemata.
4. Lavage of stomach.
5. Ice or hot applications to the inflamed area.

In my opinion conservative treatment should be reserved exclusively for cases in which for any reason it is impossible to operate immediately, such as the impossibility of getting a competent surgeon, the long distance from a hospital, or difficulty of transport to a hospital. In addition there are cases in which certain contra-indications render immediate operation inadvisable, such as serious disease of the kidneys, heart or lungs.

*Complications and Sequelæ.*—The more serious conditions which may complicate diffuse septic peritonitis include intestinal obstruction, subphrenic abscess, pulmonary conditions, such as empyema and pneumonia, secondary abscesses in various situations, fæcal fistula and septicæmia.

*Intestinal Obstruction.*—Intestinal obstruction is a very common complication of diffuse peritonitis, and in the fatal cases is the most frequent cause of death. It occurs chiefly in two forms, namely, (1) Paralytic Ileus, and (2) Mechanical Obstruction. Cases of what is described as spastic or dynamic ileus have been reported, but this form of obstruction is so extremely rare that I do not think it necessary to discuss it. The diagnosis from mechanical obstruction is very difficult, but as the treatment of both conditions is similar this is not a matter of practical importance.

*Paralytic Ileus.*—The paralytic form of obstruction may appear at the onset of an attack of peritonitis, but is more often met with soon after operation in cases in which peritonitis has already been present for some days. Strictly speaking, the condition can scarcely be regarded as obstruction, as there is no obstacle to the passage of the intestinal contents, but merely functional incapacity to propel them onwards. It is probably due to paralysis of the musculature owing to inflammation, and to the effect of the toxins produced by the micro-organisms upon the nerve endings. After operation and drainage in diffuse peritonitis there is always a possibility of the supervention of paralytic ileus, and measures should therefore be taken to prevent it.

*Mechanical Obstruction.*—When the bowels have moved after operation there is no longer any fear of paralytic ileus. The danger then is from mechanical obstruction, which may occur when adhesions have formed, usually at the end of a week



or ten days. The site of obstruction is most often in the lower part of the ileum.

In peritonitis complicated by ileus it is now generally agreed that the ileus, and not the peritonitis, is the chief cause of the fatal result, and a consideration of the manner in which intestinal obstruction endangers life is therefore of practical significance. The following causes of death have been suggested: (1) Its mechanical results, which include compression of the heart in an upward direction, compression of the lungs, and interference with the circulation in the abdominal and thoracic cavities; (2) General toxæmia, due to resorption of bacteria and toxins from the intestinal contents; (3) A pathological change in the sympathetic nervous system; (4) Depletion of body fluids.

As to the deleterious effects of mechanical compression there can be no difference of opinion, but the paramount importance of toxæmia has been much discussed in recent publications. Experimental results in this connection have not been conclusive. Braun<sup>10</sup> and McLean<sup>11</sup> do not believe that death is due to toxæmia, absorption of bacteria or their toxins, or of abnormal physiological secretion, whilst Stone and Whipple believe that they have discovered the cause of death in a toxin formed by the mucosa of the occluded loops of the intestine. It seems likely that a pathological change in the sympathetic nervous system is a contributory factor. That loss of body fluids has a certain influence appears probable from the fact that in animals which die from experimental ileus there is invariably marked loss of weight, and that in those which succumb after cessation of administration of saline solution the appearances at autopsy indicate that they might have survived considerably longer had the saline been continued.

When the obstruction is due to a slight or localised peritonitis it may be relieved by saline cathartics, enemata, and drugs which stimulate peristalsis. Strychnine, atropine, physostigmine and pituitary extract have been recommended, the most effectual of these in my opinion being physostigmine and pituitrin. I have had very good results from the administration of a fiftieth of a grain of salicylate of physostigmine every four hours, and in certain cases pituitrin, given in doses of 1 cc. every four hours, has seemed to be even more effective. Whilst there is no doubt that pituitrin has in suitable cases a powerful effect in stimulating peristalsis, it should always be borne in mind that it is a dangerous drug to use in certain cardio-vas-

cular conditions. Calomel in small doses, followed by magnesium sulphate, should also be given, and following this enemata are usually of the greatest value. I am in the habit of giving a so-called 1, 2, 3 enema (1 oz. glycerin, 2 oz. magnesium sulphate, 3 ozs. water) every two or three hours, or this enema and a simple enema, to which is added from half to one ounce of turpentine, may be given alternately.

If, however, at the time of operation the coils of intestine are seen to be distended and thinned it is useless and dangerous to employ medical measures. Cæcostomy or appendicostomy may be of service, but in severe and advanced cases enterostomy should be performed. Volterani has reported eight cases, six of which were cured by enterostomy. Grekow, of the Obuchow Hospital, Petrograd, has performed primary enterostomy at the same time as the operation for peritonitis in fourteen very advanced cases of paralytic ileus, with six cures. He also reports a case of diffuse peritonitis and mechanical obstruction, which recovered after similar treatment. I can also report four cases of primary enterostomy with recovery. McLean has recently reported three cases of appendicular peritonitis, in which he anticipated post-operative ileus by performing ileostomy at the primary operation. All three cases were practically moribund, and all recovered. He recommends primary ileostomy in all severe cases of peritonitis, and believes that in the last three years he has been able, by a combination of this operation and the free administration of saline solution, to save sixty-five per cent. of cases of severe ileus, which would otherwise have terminated fatally. In exceptionally severe cases it may be necessary to make multiple fistulæ. It does not seem advisable to establish intestinal fistulæ, excepting as a last resource, in view of the unpleasant nature of the complication, and the fact that fistulæ of the small intestine and cæcum have a deleterious effect upon nutrition. In apparently hopeless cases I have made multiple punctures of the intestines by means of a fine cannula, the openings afterwards being closed. In two cases at least this procedure has saved the lives of the patients, and in the other cases it has added very considerably to their comfort.

In the more severe cases, after the removal of the primary cause of the peritonitis, I have been in the habit of having a rectal tube passed while the abdomen is open, so that, with my hand in the abdomen, I can manipulate it through the sigmoid and up into the descending colon. This tube is fastened near

the anus by a silkworm gut suture through the skin. This renders it possible to give enemas higher up than can be done in the ordinary way, and consequently they are more likely to be effectual. I am convinced that this method has been of material service in cases in which there was reason to fear the development of paralytic ileus.

I should like especially to emphasize the importance of a careful watch after operation for the early symptoms of mechanical obstruction, which, as previously mentioned, usually appear at the end of a week or ten days, and to urge immediate operation. If, at the end of a few days or a week, the patient suffers from nausea and vomiting, and if a purgative or enema is not effective, it is inadvisable to delay more than a few hours before resorting to surgical measures. If much time is wasted in this way the patient will become so weak that even though the operation is performed later and the obstruction relieved recovery will not follow.

Since keeping a close watch for mechanical obstruction, and making it a rule to operate at once, I have not lost a single case from this cause, whereas a few years ago several lives were lost, owing to the fact that operation was delayed in the forlorn hope of a result from purgatives and enemata. Several patients operated upon in the country, in whom this complication appeared at the end of a week or ten days, have lost their lives because a surgeon was not called to give the necessary relief by a second operation.

*Subphrenic Abscess and Pulmonary Complications.*—In diffuse septic peritonitis, with abundant sero-purulent effusion, the latter may, either by direct extension or extension through the lymphatics, form a subphrenic abscess. The onset of the symptoms indicating the presence of this complication may be sudden or gradual. They consist of elevation of temperature, possibly associated with rigors, vomiting, rigidity and pain, the latter often being increased on respiration. Pressure over the lower ribs on the right side will elicit tenderness, and there will be some muscular rigidity immediately below this. There is increased liver dullness, and later the liver becomes displaced downwards, with marked bulging of the lower right ribs. The treatment consists of incision and drainage.

Extension of a subphrenic abscess along the under surface of the diaphragm often leads to secondary infection of the pleura, resulting in effusion of serum or pus into the base of the pleural cavity, and formation of a basal empyema. In total empyema



the affected side of the thorax does not move on respiration, and there may be bulging of the intercostal spaces, with dullness on percussion over the area involved. Loss of vocal fremitus is a significant sign. There is usually fever and dyspnoea, marked leucocytosis, and displacement of the heart and other viscera. The diagnosis can usually be made from the physical signs, confirmed if necessary by puncture. The bacteriology has a considerable influence on the prognosis of an empyema, which is more grave in the presence of pyogenic cocci than of pneumococci. In the latter case the condition is sometimes relieved by aspiration alone, but in the former drainage and resection of a rib are required. In some cases which have recently come under my own observation a subphrenic abscess developed and extended to the pleura on the right side, and was followed by development of a right empyema.

*Case I.*—Girl aged fourteen; removal of perforated appendix, and drainage of abscess, a week after operation the temperature began to rise slightly in the evenings, and a few days later there was prominence and tenderness on pressure over the ribs on the right side. A large subphrenic abscess was opened and drained. After the temperature had been normal for about a week it again began to rise, and there was increased respiration and dullness over the right chest. It then became quite clear that she had an empyema, and after resection of a portion of a rib and drainage she made a good recovery.

*Case II.*—Man aged 36. Operation in the country for a large appendiceal abscess of a week's standing. About a quart of pus was let out, and a gangrenous appendix removed. Drainage was provided, and the patient put in the Fowler position. Ten days later there was a slight evening rise of temperature, which increased until bulging of the lower right ribs made it clear that a subphrenic abscess had developed, and two weeks later a right empyema was shown by aspiration. The friends of the patient would not consent to a further operation until he was moribund, and he died before my arrival.

*Case III.*—Man aged 56; perforation of duodenal ulcer; operation seventeen hours after first symptom. Perforation closed and drainage provided through incision, as well as by tube in pelvis through suprapubic opening. Everything went well until the end of the third week, when his temperature went up, and he had a typical septic chart for the following week, with increase of pulse rate. Tenderness and bulging of lower right ribs. Incision and drainage relieved a large subphrenic

abscess. He immediately improved, and made good progress for another week, when a right empyema became manifest. Before an operation could be done to relieve this he died suddenly of pulmonary embolism.

With the object of preventing pulmonary complications, more especially pneumonia, which is often the cause of death, pulmonary gymnastics are sometimes practised after operation, and injections of camphor given for the first eight days. Early treatment by massage of the lower extremities helps to prevent thrombo-phlebitis.

*Statistics.*—The extraordinary variations in the results reported by different writers, the mortality varying between 3 and 80 per cent. or even more, are apparently chiefly dependent upon the differences which have been previously referred to in the application of the term *Diffuse Peritonitis*, and upon the fact that in some cases the severity of the symptoms does not correspond to the extent of inflammation. In not a few cases, in which the classical symptom-complex is practically absent, the whole of the peritoneal cavity is found to be involved on opening the abdomen. It is also obvious from a study of the statistics that in some districts, or in the practice of a particular surgeon, opportunities of operating at an early stage are more frequent, and this naturally tends to improve the results.

From the literature appearing between 1885 and 1893 Mikulicz<sup>12</sup> collected thirty-five cases, with a mortality of 97 per cent., and sixty-eight cases from that published between 1894 and 1896, the mortality being reduced to 52.4 per cent. In 1900 Sonnenburg<sup>13</sup> reported 21 cases of appendicular peritonitis with 18 deaths (85.7 per cent.), and Sprengel<sup>14</sup> at the meeting of the Deutsche Gesellschaft für Chirurgie, reported 42 cases with 30 deaths (70 per cent.). Dépage of Brussels<sup>15</sup>, at the meeting of the French Congress of Surgeons in 1911, stated that since 1906, at which time he adopted a method analogous to that of Murphy, his mortality had diminished from 40 per cent. to 9 per cent. Between 1900 and 1909 the mortality in Rehn's Clinic has been gradually reduced from 60 per cent. to 14 per cent.

Boljarski<sup>16</sup>, of the Obuchow Hospital, Petrograd, states that the mortality of diffuse peritonitis in this hospital has been reduced from 79.7 per cent. in 1903 to 32.2 per cent. at the end of 1912. This improvement applies more especially to the period between 1909 and 1912, since which they have based their treatment upon the principle of early operation.

Grekow also reports cases which have come under his observation at the Obuchow Hospital. In 101 cases of appendicular peritonitis there were 59 cures and 42 deaths (41.5 per cent.). Thirteen of the cases were operated upon within twenty-four hours with 3 deaths (23 per cent.); 29 within forty-eight hours with 2 deaths (6 per cent.); 15 on the third day with 3 deaths (30 per cent.); 25 on the fourth or fifth day with 18 deaths (72 per cent.); 12 on the sixth or seventh day with 9 deaths (75 per cent.); 7 on the eighth to the twenty-first day with 6 deaths (85 per cent.).

At the Congress of French Surgeons, held in Paris in 1911, Hartmann<sup>17</sup> reported 56 cases operated upon at the Bichat Hospital between 1908 and 1911, 46 being of appendicular origin. Of the appendicular cases 15 were operated upon within the first 36 hours with no mortality; 10 during the first forty-eight hours, with a mortality of 10 per cent.; 13 in from two to four days, with a mortality of 38.5 per cent.; and eight after the fourth day, with a mortality of 100 per cent. Three cases of gastric or duodenal perforation were operated upon in from six to twelve hours after the onset of symptoms, with recovery in every case. The remaining seven cases, two of which were due to intestinal perforation, three to disease of the uterus or adnexa, one to acute enteritis of the large intestine, and one to perforation of the gall-bladder, did not come under observation for some considerable time after the onset of symptoms, and all died.

As regards the effect of methods of treatment on mortality the results of experience indicate that flushing out of the peritoneal cavity increases resorption of bacteria and their products, and tends to produce shock. Of 19 cases, in which Grekow flushed out the abdominal cavity, the post-mortem appearances indicated that death in the fifteen fatal cases was due to sepsis. Of 10 cases, due to traumatic rupture of the intestine, operated upon during the first six hours, four treated by flushing died, whilst of six treated by the dry method 4 recovered. Of 28 cases, operated upon in from 6 to 24 hours, of 5 cases treated by flushing one recovered, whilst of 23 in which the dry method was employed 20 recovered.

In the cases of peritonitis due to injuries from bullet and shrapnel wounds, Beavis and Souttar state that their experience in the Field Hospital in Belgium indicates that the prognosis is fairly good when operation is performed within six hours, but that very few cases recover if it is delayed until twelve hours after the injury.



The results confirm the assumption that early intervention is the most important factor in success, and indicate that *the fate of the patient is therefore dependent upon the early diagnosis made by the physician, and upon the prompt removal of the primary cause of the peritonitis.*

Between 1907 and 1912, 282 cases of appendicular peritonitis came under my own observation, with 45 deaths (15.1 per cent. mortality). The mortality has diminished from 27.2 per cent. in 1907 to 9.2 per cent. in 1912. Since this latter date the results which I have attained have been extremely good, and in my private practice I do not think I now lose 5 per cent. of cases.

To sum up I should like to emphasize the following points: The necessity for early operation in all cases of acute appendicitis; the importance of a rapidly-performed operation, with as little manipulation of the intestines as possible; that the patient should be placed in the Fowler position as soon as the diagnosis is made, should remain in it until the operation is performed, and after it until danger is over; the necessity for a careful watch for mechanical obstruction, which should be relieved by immediate operation, and also for symptoms of other complications, such as subphrenic abscess.

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## Editorials.

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### ONTARIO MEDICAL ASSOCIATION

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We are glad to be able to state that the arrangements for the coming meeting of the Ontario Medical Association in Peterborough are well advanced and very satisfactory in all respects. So far as we can learn the members of our profession in all our cities and towns of Ontario are looking forward with much pleasure to their trip to this beautiful inland town.

The profession of Peterborough have made arrangements for ample accommodation for the visiting doctors of the two Associations which will hold their meetings during that week; that is, the Ontario Medical Health Officers Association, May 25 and 26, and the Ontario Medical Association, May 26, 27, 28. We are glad to be able to publish in this issue the provisional programmes of both Associations. In spite of our war troubles and all serious contingencies connected therewith we believe there will be a large attendance, and two very excellent meetings. (See page 249.)

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### CANADIAN MEDICAL ASSOCIATION

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As announced in our last issue the meeting of the Canadian Medical Association for this year has been cancelled. It was expected that it would be held July 6-9, under the Presidency of Dr. R. E. McKechnie, of Vancouver. For many months the Local Committee on Arrangements worked assiduously to make the meeting a success. It was found, however, that so many prominent members of the Association from

Montreal, Ottawa, Winnipeg, Toronto, and many other cities and towns in all parts of the Dominion were going to the front that under the circumstances the meeting could not be made a success. Apart from the reduction in numbers at the meeting, war emergencies have upset the equilibrium of the profession in various ways. The *Dominion Medical Monthly* also points out that when the Association met in Vancouver eleven years ago there was a large attendance from Seattle, Portland and other points in Washington and Oregon. The Oregon State Medical Society met immediately after the Canadian, and a number (nearly 70) from Oregon and Washington went to the Vancouver meeting and then back to their own.

The meeting of the Public Health Association which was to have been held in Port Arthur last September was cancelled for similar reasons.

We think it unfortunate that such meetings should have been cancelled, but we know that the Executive Councils of both these Associations have considered very seriously the various conditions of things before arriving at their decisions.

As we go to press we find that it has been definitely settled that the next meeting will be held in Vancouver as soon as practicable after the declaration of peace.

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#### PROVINCIAL LICENSE BOARD

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The Ontario Government has appointed the Provincial Board of License Commissioners: Chairman, J. D. Flavelle, Chairman of the Lindsay Water Commission, a public-spirited man in every way, a man of great business ability, a life long helper of the sick-poor, a sportsman of the highest type, the



greatest curler in the world, an honest man. Vice-Chairman: W. S. Dingman, of Stratford, editor and proprietor of the *Stratford Herald* since 1886. He is one of the best known and most highly respected men in that part of the Province. The other members are Fred Dane, for many years prominent in business in Toronto, and since 1906 a member of the T. N. O. Railway Commission; George T. Smith, at present Mining Recorder of Haileybury, who is said to be an able administrator, and J. A. Ayearst, who was originally a Methodist clergyman, who has for some time been associated with the License Department of the Government, and is recognized as a very efficient officer.

This Board will have the authority to govern the liquor traffic and minimize its abuses. One of the most important of its duties will be "to prohibit the sale to any particular class of persons in the hotels in any particular locality, or on any specified day where the Board considers such prohibition in the public interest."

We hope that under this rule the commissioners will be able to prevent drunkenness among our soldiers, and also to prevent the sale of liquor to those unfortunate creatures suffering from what we call dipsomania.

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### HOSPITALS IN ONTARIO

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In the last annual report on hospitals, etc., Dr. Bruce Smith points out the urgent need of the establishment of more local hospitals for consumptives. These should be established in different parts of the Province. It would be a good thing to have the patients housed near their own homes so that they

may be visited occasionally by their own physicians and relatives. The Government grant for such institutions is so liberal that there is no excuse for not establishing them. We are glad to know that the public are being rapidly educated as to the value of such institutions in connection with tuberculosis. They are also learning that there is a silver lining to the cloud, and that prevention and cure of tuberculosis are being duly considered and appreciated.

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#### MEDICAL MATTERS IN SERBIA

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We are told that Sir Thomas Lipton, who returned to London from Serbia, March 21st, stated that in that country the conditions as to sanitary matters including all matters pertaining to health were appalling. He saw on the country roads many people sick, and too weak to crawl to a hospital. The sick people suffered mostly from fevers, and were being dragged along in carts frequently by women and children. There were scarcely enough people not suffering from diseases to dig graves for the dead, many of whom were lying exposed in the cemeteries.

He referred to the great work of Dr. F. Donnelly of the American Red Cross, who died while working in the Ghevgheli. In the hospital in this village there were 1,400 persons without blankets, mattresses or even straw, suffering from typhus, typhoid fever, dysentery and smallpox all herded together. Six American doctors, 12 nurses and three Serbian doctors were doing their best in the way of treatment. Sir Thomas said that Dr. Donnelly was one of the greatest heroes of the war.

The Serbian legation asked Premier Gouin, of Quebec, to supply some French-Canadian doctors. Twenty applied, and six have been accepted.

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### PAN-AMERICAN MEDICAL CONGRESS

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The Seventh Pan-American Medical Congress will be held in San Francisco, June 17-21. The meeting will be held this year in California because of the invitation issued by the President of the United States and an Act of Congress approving. The countries embraced in the Congress are practically all those situated in North and South America. There will be seven sections: Medicine, Surgery, Obstetrics and Gynæcology, Anatomy and Pathology, Tropical Medicine, Otology, Medical Literature. All qualified practitioners in the various countries are eligible for membership. The fee is \$5.00, which entitles the holder to a set of transactions. The railroad fare will be one fare for the round trip good for three months. The Palace Hotel is the headquarters. President, Dr. Chas. A. L. Reed, Cincinnati; Secretary, Dr. Ramon Guiteras, 80 Madison Avenue, New York City.

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### PASTEUR DURING THE FRANCO-PRUSSIAN WAR

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The correspondent of the *New York Nation* describes the following incident in the life of Pasteur:

In 1868 Pasteur had been awarded a diploma by the University of Bonn. Early in 1871 he wrote to the head of the Faculty of Medicine: "Now the sight of that parchment is odious to me, and I feel offended at seeing my name, with the qualification of *Virum Clarissimum* that you have given it, placed under a



name which is henceforth an object of execration in my country, Rex Gulielmus. While highly asseverating my profound respect for you, sir, and for the celebrated professors who have affixed their signatures to the decision of the members of your order, I am called upon by my conscience to ask you to efface my name from the archives of your faculty, and to take back that diploma, as a sign of the indignation inspired by the barbarity and hypocrisy of him, who, in order to satisfy his criminal pride, persists in the massacre of two great nations."

To this the following reply was returned:

"Sir,—The undersigned, now principal of the Faculty of Medicine of Bonn, is requested to answer the insult which you have dared to offer to the German nation in the sacred person of its august Emperor, King Wilhelm of Prussia, by sending you the expression of its entire contempt.—Dr. Maurice Naumann."

"P.S.—Desiring to keep its papers free from taint, the faculty herewith returns your screed."

In answering this communication Pasteur said: "I have the honor of informing you, Mr. Principal, that there are times when the expression of contempt in a Prussian mouth is equivalent for a true Frenchman to that of *Virum Clarissimum*, which you once publicly conferred upon me." In a postscript the great French scientist wrote:

"And, now, Mr. Principal, after reading over both your letter and mine, I sorrow in my heart to think that men who, like yourself and myself, have spent a lifetime in the pursuit of truth and progress, should address each other in such a fashion, founded, on my part, on such actions. This is but one of the results of the character your Emperor has given to this war.

You speak to me of taint. Mr. Principal, taint will rest, you may be assured, until the far distant ages on the memory of those who began the bombardment of Paris when capitulation by famine was inevitable, and who continued this act of savagery after it had become evident to all men that it would not advance by one hour the surrender of the heroic city."

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### UNIVERSITY BASE HOSPITAL

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We have received another circular from the President of the Toronto University respecting the Base Hospital to be established in France. As we have before stated there will be 1,040 beds, that is the same number as in the McGill Base Hospital. The government will provide the equipment required by military regulations, but in order to render the best service to the wounded, it is necessary to get a large amount of money for supplies in general and the equipment that surgeons and physicians will need.

For this purpose \$30,000 is required. On the 9th of April \$15,000 had been contributed. At the time of going to press the amount is \$19,000. Large quantities of sheets, socks, hospital shirts, bandages and all kinds of medical and surgical supplies will be required.

We believe the most satisfactory matter in connection with this scheme is the magnificent work being done by the women and young girls of Toronto. We understand the work is going on in all parts of the city. We know of nothing better than that which is being done in St. Paul's Church. During three days of the week 190 women and young girls are working from 10 a.m. to 5 p.m. under the leadership of

Mrs. Cody, Mrs. Fred Fenton and Mrs. Strachan Johnston. Never has the writer seen anything more inspiring than the work of these devoted women. They are making all the things asked for by the President; and all their bandages, shirts and dressings are good. The writer has never seen anything better, and seldom anything quite so good.

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According to the *University Monthly* the following graduates in Medicine has gone or are going to the front: R. E. Wodehouse, Port Arthur; A. K. Haywood, Toronto; G. C. Grier, Peterborough; R. K. George, Toronto; M. Morton, Toronto; E. A. Neff, Edmonton; G. E. Gliddon, Port Union; J. W. Ross and W. B. Hendry, Toronto; H. H. Burnham, Toronto; D. M. Sutherland, Princeton; D. Robertson, Toronto; C. G. Duncan, Port Credit; W. Scott, D. W. McPherson, P. Goldsmith, E. B. Hardy, A. W. Ellis, G. R. Philip, C. E. Cole, B. K. Menzies, W. L. C. McBeth, J. C. Calhoun, G. Dowsley, R. S. Pentecost, all of Toronto; J. T. Clarke, Quebec; W. T. McKinnon, Berwick; D. B. Bentley, Sarnia; A. E. Snell, London; W. H. Tytler, S. Ellis, Windsor; F. S. Burke, Fergus; N. V. Leslie and W. Bethune, Hamilton; J. M. Stewart, Halifax; P. G. Brown, H. B. Jeffs, E. S. Jeffrey, R. E. Dalton, W. B. Locke, H. A. Rollings, H. M. Bethune and J. S. Crawford, Toronto; G. Musson, Chatham; J. J. Fraser, Walkerton; K. D. Pantton, Vancouver; W. J. Johnston, Craigvale; F. R. Smoth, Barrie; H. E. Clutterbuck, Toronto; W. W. Denison, Toronto; O. T. Dinnick, London, Eng.; G. D. Farmer, Ancaster; A. S. Langrill, R. D. Rudolf and H. Todd, Toronto; R. Raikes, Midland; A. J. McKenzie, J. A. Amyot, J. T. Fotheringham, J. A.



Roberts, G. D. Farmer, R. Y. Kenny and J. E. Knox, Toronto; J. A. Cullum, Regina; W. T. Deadman, Beeton; D. T. Evans, Port Perry; A. A. Fletcher, Toronto; D. K. Kapelle, Hamilton; W. C. Laidlaw, Edmonton; K. C. McKenzie, Monkton; W. T. Nicholson, Hamilton; P. W. O'Sullivan and S. H. Parke, Toronto; J. S. Reed, Tillsonburg; L. V. Robertson, A. C. Roswell, G. S. Strathy and W. J. Yellowlees, Toronto; W. L. Silcox and T. H. D. Storms, Hamilton; A. McKay Bell, Merrickville; J. F. Burgess, Owen Sound; W. J. Barton, Beeton; E. C. Ashton, Brantford; G. W. Anderson and W. L. Whittemore, Toronto; O. E. Carr, Woodford; E. S. Wylie, Windsor, and the following H. C. Elliott, J. G. W. Hunt, A. Husband, J. A. Linton, J. Lowndes, T. H. McKillop, W. T. H. McLean, M. McLeod, J. G. Morgan, L. B. Robertson, F. L. Vaux, J. S. H. Brown, addresses not known.

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We have, on another page of this issue, referred to the magnificent work done in preparing bandages, dressings, bed coverings, shirts, etc., for the University Base Hospital. It is only fair to add that similar great work is being done in nearly all the other churches in Toronto, and also in the buildings of the university.

## Reports of Societies

### ONTARIO MEDICAL ASSOCIATION PROGRAMME

Tuesday, May 25—Registration.

Wednesday, May 26—Morning—Registration.

Afternoon—General Session. Business Meeting.

Evening—General Session. President's Address. Address in Medicine. By Dr. E. C. Rosenow, Chicago: "Variations in Streptococci and their Elective Localizations in Man and Animals."

Thursday, May 27—Morning—Sectional Meetings.

Afternoon—General Session. Business Meeting. Paper—"The Local Medical Society." Dr. A. F. McKenzie, Monkton. Address by Adam H. Wright, Toronto—"Medical Education, Specialties and Fee-Splitting." Address in Surgery by Dr. F. J. Shepherd, Montreal.

Evening—General Session. Symposium on Heart.

(1) "Clinical Electrocardiography" (with lantern slides). Julian London.

(2) "Syphilis of the Heart and Aorta." A. McPhedran.

(3) "Treatment of a Fever Heart." H. B. Anderson.

Reception by the President, Dr. D. J. Gibb Wishart, and Mrs. Wishart.

Friday, May 28—Morning—Sectional Meetings.

#### Section of Surgery.

1. "Tendon Fixation in Infantile Paralysis." W. E. Gallie, Toronto.
2. "Local and Spinal Anæsthesia." J. R. Parry, Hamilton.
3. "Simple Goitre and its Treatment." F. N. G. Starr, Toronto.
4. "The Treatment of Arthritis." Dr. Seaborn, London.
5. "The Principle of the Surgical Treatment of Exophthalmic Goitre." W. J. McDonald, St. Catharines.
6. "Empyema." W. A. Brown, Chesterville.
7. "Surgical Aspects of Neurasthenia." Dr. Frederick, Peterborough.
8. "Cancer of the Stomach." H. A. Bruce, Toronto.

9. "Abdominal Pain." B. Z. Milner, Toronto.
10. "Renal Function in Surgical Disease of the Kidney." W. W. Jones, Toronto.

Section of Obstetrics and Gynæcology:

1. "Scopolamine-Morphine Narcosis in Obstetrics." J. G. Gallie and W. A. Scott, Toronto.
2. "Serious Vomiting in Early Pregnancy." K. McIlwraith, Toronto.
3. "Uterine Discharges, their Pathology and Treatment." E. K. Cullen, Detroit.
4. "Cancer of the Uterus, with reference to its early diagnosis." G. S. Cameron, Peterborough.

Section of Medicine.

1. "The Relation of the Mental Hospital to the General Practitioner's Work." Harvey Clare, Toronto.
2. "The Relation of School Children to the Tuberculosis Campaign." J. H. Holbrook, Hamilton.
3. "Serum Therapy." W. Goldie, Toronto.
4. "The Use of Radium and Trichloroacetic Acid in Dermatology." W. H. B. Aikins, Toronto.
5. "Observations on Blood Pressure." Dr. Emmerson, Goderich.
6. "Exophthalmic Goitre." Dr. D. Smith, Stratford.
7. "Clinical Manifestations of Cerebro-Spinal Syphilis." T. G. Phillips, Cleveland, O.
8. "The Etiology of Tetany—Clinical and Metabolic Studies." Alan Brown, Toronto.
9. "Bowel Conditions in Epilepsy." Goldwin Howland, Toronto.
10. "Vagotomy and Duodenal Ulcer." F. W. Rolph, Toronto.
11. "The Latent Rôle in Pulmonary Tuberculosis." W. L. Bray, Raybrook Sanitarium, N.Y.

Section of Eye, Ear, Nose and Throat:

1. "The Treatment of Tuberculosis of the Larynx." Dr. Morton, Hamilton.
2. "The Use of the Electro-Magnet in Ophthalmic Practice." R. A. Reeve, Toronto.



3. "The Use of the Broncho-Tracheoscope and Oesophagoscope in Treatment." George Biggs, Toronto.
4. "Case Reports." F. C. Trebilcock, Toronto.
5. "Ocular Manifestations of Disseminated Sclerosis, with Case Report." Colin Campbell, Toronto.
6. "Demonstration of Accessory Sinuses Diseases." Angus Campbell, Toronto.
7. "Some Unusual features in a case of Senile Cataract Extraction." G. H. Burnham, Toronto.

### HEALTH OFFICERS' ASSOCIATION

Provisional programme Ontario Health Officers' Association. Fourth Annual Conference of Health Officers. Assembly Hall, Collegiate Institute, City of Peterborough. Tuesday and Wednesday, May 25th and 26th, 1915.

"County Sanatoria"—James McQueen, M.O.H., Freelon.

"The Early Signs of Tuberculosis"—J. H. Holbrook, Superintendent Mountain Sanatorium, Hamilton.

"Tuberculosis Problems from a Public Health Standpoint"—D. A. Craig, Superintendent Queen Alexandra Sanatorium, London.

President's Address—W. R. Hall, M.O.H., Chatham.

"Measles"—A. Dalton Smith, M.O.H., Mitchell.

"Anti-Typhoid Vaccination"—F. W. Schofield, Toronto.

"Diphtheria"—J. F. Hanly, M.O.H., Almonte.

Moving Pictures, E. H. Jones.

"Food"—H. D. Pease, Lederle Laboratory, New York City.

"How Shall we Enforce a Better Observance of Quarantine?"—C. A. Laurie, M.O.H., Port Arthur.

"Health Problems in Small Towns and their Solution"—J. W. Shaw, M.O.H., Clinton.

"How can the Health Officer Secure the Co-operation of the Residents of His Municipality"—E. B. Oliver, Fort William.

"Methods of Disposing of Domestic Wastes in Municipalities with a Sewerage System"—F. A. Dallyn, Provincial Sanitary Engineer.

"Improvements Made in Public Health Matters in Owen Sound since Establishment of District Officers of Health System"—H. G. Murray, M.O.H., Owen Sound.

"Some of the Troubles of a Rural Medical Officer of Health and their Remedy"—M. Powers, M.O.H., Rockland.

"The Prevention of Insanity"—F. G. Fitzgerald, Associate Professor of Hygiene, University of Toronto.

"Abnormal Mental Conditions in Children and Their Treatment"—Adam H. Wright, Toronto.

"Pasteurized Milk"—Joseph Race, Bacteriologist, Local Board of Health, Ottawa.

"Sanitary Conditions in Rural Schools"—Thomas J. McNally, District Officer of Health, Guelph.

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Barney finds that tuberculosis of the genital tract is accompanied by old or active lesions in other organs in more than 55 per cent. of cases, most of them being in the lung. The genital tract is usually first attacked in cases of genito-urinary tuberculosis. Over 27 per cent. of 113 patients traced died of some form of tuberculosis. Miliary, renal and lung tuberculosis, in order, are the prevailing types of the disease. He believes that until ten years have elapsed after operation no patient can be said to be cured of this form of tuberculosis. In genital tuberculosis, neither the disease nor the operation for its relief seems to impair masculinity. Experience shows that although the prostate and seminal vesicles are involved in most cases of epididymal tuberculosis, this condition will improve or heal after removal of the epididymis. Radical surgical treatment of these organs is unnecessary and unwise.—*Journ. of Amer. Med. Assoc.*

## NEWS ITEMS

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### Relief Belgian Medical and Pharmaceutical Professions

The following subscriptions are acknowledged by the Treasurer:—Dr. Paul Scott, \$25; Manitoba Exec. Com. (fourth remittance), \$372.50; Dr. J. E. Elliott, \$11; Dr. Large, \$5; Dr. Grant, \$3; Dr. J. S. Burris, \$10; Dr. H. L. Burris, \$5; Dr. T. Kearney, \$2; Dr. J. H. Clements, \$3; Dr. D. Macklin, \$10; Dr. Ford, \$10; Dr. Rutherford, \$10; Dr. Deacon, \$10; Dr. Quinlin, \$10; Dr. Smith, \$10; Dr. Monteith, \$10; Dr. Fraser, \$10; Dr. Gemmel, \$10; Drs. Rankin and Cannon, \$10; Drs. J. A. and L. Robertson, \$10; Dr. Forester, \$10; Dr. Maynard, \$5; Dr. Gregory, \$2; Dr. Nasmyth, \$2; Dr. Allen, \$2; Dr. Easson, \$2; Dr. McKenzie, \$10; Dr. Armstrong, \$10; Dr. Hodge, \$10; Dr. Burley, \$10; Mr. Muir, \$2; Dr. Smith, \$10; Dr. Hurlburt, \$5; Dr. Smith, \$10; Dr. Fraleigh, \$10; Dr. Stanley, \$10; Dr. Brown, \$10; Dr. Knox, \$10; Dr. Tye, \$10; Dr. Campbell, \$10; Dr. King Smith, \$6; Mr. J. B. Dimmick, \$10; Mrs. J. B. Dimmick, \$10; Dr. Gallo-way, \$3; Dr. C. L. Starr, \$10; Dr. J. Livingstone, \$1; Dr. E. Boyd, \$5; Dr. W. E. Gallie, \$5; Dr. Alan Brown, \$5; Dr. G. A. Campbell, \$5; Dr. Roy Smith, \$1; Dr. Allan Baines, \$10; Dr. D. McGillivray, \$5; Dr. Alan Canfield, \$5; Dr. A. C. Bennett, \$2; Dr. B. Hannah, \$5; Dr. Joe Graham, \$5; Medical Men of Guelph, \$60; Vancouver Doctors and Druggists, \$360; Dr. Hubbard, \$10; Dr. W. F. Clarke, \$5; Dr. F. N. G. Starr, \$25; Dr. E. A. Robertson, \$2; Dr. J. T. Gilmour, \$15; Dr. C. H. Gilmour, \$10; Dr. Deacon, \$1; Dr. W. J. Harrington, \$5; Dr. R. B. Cuthbertson, \$5; Dr. W. Rogers, \$5; Dr. Bottomley, \$5; Dr. Wright, \$5; Dr. Heaslip, \$2; Dr. Robson, \$2; College of Physicians and Surgeons, Manitoba, \$1,000; College of Physicians and Surgeons, Victoria, B.C., \$263; from Nova Scotia, per Dr. Lindsay, \$487; Dr. Park, \$10; Dr. Hall, \$10. Total, \$3,076.50.

The amount previously acknowledged was \$5,974.24, so that the total subscriptions to date amount to \$9,050.75.

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The following are the officers of No. 3 Base Hospital, McGill:—Dean Birkett (in command), Drs. Elder, McCrea, Adami, Yeates, Hill, Archibald, Pirie, Rhea, Turner, Howard, Lyttle, Howell, Russell, Hutcheson, Meikenson, Francis, Mc-



Millan, Maloney, McKim, Reford, Burgess, Browne, Dickson, Ewing, Hinkston, McDonald, Wilkins, Todd, Wickham. The unit will be composed of 32 officers, 13 non-commissioned officers, 128 bearers and 43 nurses.

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Thirty-five doctors from Ontario, fourteen of whom are from Toronto, have been accepted by the Department of Militia to be sent to England for service with the Royal Army Medical Corps. The British War Office issued a request for Canadian medical men, offering to give them temporary commissions in the R.A.M.C. About 125 responded from this province, and the quota of thirty-five were selected and sent to Ottawa. Lieut.-Col. Edmund E. King has just received their acceptance.

The War Office's call contained a stipulation that physicians would be accepted only from those Canadian provinces which had reciprocal relations with Great Britain in medical practice. Ontario was one of the provinces outside these relations, but negotiations were commenced at once to arrange them and have been completed to an extent that permits of the enlisting of the quota named below. Details of leaving will be announced within a short time.

Following are the names—E. F. Frederick, 300 Charlotte street, Peterborough, Ont.; J. F. McLay, Grimsby, Ont.; J. W. Sutherland, 67 Third Avenue, Ottawa; G. C. Anglin, Weston, Ont.; T. O. Hutton, 360 Queen street, Sault Ste. Marie; Victor McWilliams, 427 Bloor west, Toronto; W. E. Pickup, Fort William; J. C. McLeod, Kincardine; A. F. Mavety, 173 Mavety street, West Toronto; R. E. Hotkins, St. Michael's Hospital, Toronto; J. N. Humphrey, Wellesley Hospital, Toronto; F. M. Walker, Toronto; H. W. Kerfoot, Hospital for Insane, Penetang; K. G. McKenzie, Stationary Hospital, Exhibition Camp; F. W. M. Smith, Bayfield; N. King Wilson, 380 Bloor street west, Toronto; O. W. Colbeck, Haileybury; A. Henderson, 152 Wilton avenue, Toronto; R. Tennent, Belleville; E. A. Urie, Guelph; C. F. Wright, Iroquois Falls; F. J. Livingstone, Hospital for Sick Children; M. H. Patterson, Hospital for Sick Children, Toronto; Austin Evans, Whitby; H. Crassweller, 133 Oullette avenue, Windsor; J. V. Brown, Stationary Hospital, Exhibition Camp, Toronto; R. L. Shields, Port Hope; W. J. Marcey, Parry Sound; F. J. Colling, College street, Toronto; A. H. Machlen, Goderich; L. M. Dawson, 5 Irving avenue, Ottawa; K. M. Simon, 653 Bloor west, Toronto; R. H. Bonnycastle, Campbellford; J. J. Middleton, 653 Bloor west, Toronto.

## Personals.

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Dr. Charles Sheard, of Toronto, returned from his Southern trip on March 19th.

Dr. W. Oldright is back in Toronto after a visit of two months in St. Kitt's, British West Indies.

Dr. J. Gordon Gallie, of Toronto, was married to Miss Marion MacLean, of Oakville, March 29th.

Dr. Jno. T. Fotheringham, of Toronto, sailed for England April 24.

Dr. J. Orlando Orr, of Toronto, after a holiday trip to New York and Atlantic City, returned to his home April 16th.

At the meeting of the Parkdale Cricket Club held March 23rd, Dr. A. C. Bennett was elected President.

Hugh A. Niven of the Princess Patricia's Regiment, son of Dr. J. S. Niven, London, Ont., was wounded on March 19th.

Dr. Price Brown returned from Ashville, N.C., March 31st, and is now living in his new home "Cranbrook Lodge," Wye-combe.

Dr. E. H. Adams, of Toronto, was elected Supreme Grand President of the "Sons of Canada" by the "Management Committee" April 17th.

Lieut. Davidson, of Calgary, in a letter to his father. Dr. Alex. Davidson, Russell Hill Road, gave an interesting account of the sinking of the German Submarine U-8.

Mrs. H. D. Warren, of Toronto, has given a motor ambulance to the Shorncliffe Queen's Canada Hospital, which is in charge of Dr. Donald Armour.

Dr. Playfair McMurrich, of the University of Toronto, went to Philadelphia early in April to attend a meeting of the Advisory Board of the Wistar Institute of Anatomy.

Dr. George Lovell Gulland was appointed Professor of Medicine in the University of Edinburgh, January 29th, in the place of Prof. Wyllie, resigned.

Dr. Charles H. Gilmour (Surgeon-Major), who is on the staff of No. 2 General Hospital at the front, is the son of Dr. J. H. Gilmour, Superintendent of the Ontario Reformatory.

The following have been elected members of the Council of Queen's University, Kingston; Drs. Victoria Reid, Toronto, T. H. Farrell, Utica, N.Y., and E. C. Watson, Detroit, Mich.

Dr. G. Sterling Ryerson, President of the Canadian Red Cross Association, sailed from New York for England, April 3rd. After remaining about a week in London he went over to France for a tour of inspection of the Red Cross work at the seat of war.

Dr. George McDonagh, on his return trip, reached New York, April 15th, but as he was afraid there was no summer weather in Toronto he decided to go South for three weeks, and then would return to Canada and resume practice.

A son of Dr. Clarke, M.P., Red Deer, was in the famous charge of the Princess Patricia's Regiment, which was so highly praised by Sir John French. He was one of fifty who led the attack, and escaped unhurt.

Dr. Frederick Taylor, M.D. (London Univ., 1870), was elected President of the Royal College of Physicians of London, March 28. This College received its Charter of incorporation from Henry VII., and its first president was Thomas Linacre, elected 1815.

As announced in our last issue Dr. Harley Smith, first Italian Consul in Toronto, 1901-15, has resigned. When Dr. Smith became Consul the business was trifling, but as there are now over 20,000 Italians in the City, and a large number in the Province outside, it has assumed large proportions. During the last winter Dr. Smith started a Relief Bureau, which was supported by Italians alone, and took care of 125 families. Two years ago Dr. Smith was knighted by the Italian Government, which made him Chevalier of the Order of the Crown of Italy.



During the second week in April Dr. Charles J. Hastings, M.O.H., Toronto, had a bad attack of lagrippe, from which he has recovered very well. His intimate friends think it would be advisable for him to take a well-earned holiday.

On the evening of April 8th a banquet was tendered to Dr. Walter McKeown (Lieut.-Colonel) and Dr. John Amyot (Major) at the Ontario Club by about 150 of their friends, including both laymen and doctors. A very pleasant evening was spent, and Dr. Silverthorn, on behalf of the friends, presented the two doctors with beautiful gold wrist watches. A friend in commenting said to the writer: "Well, I hate to see Walter go because we will miss him, and I suppose we cannot try to prevent him from what he considers his duty; but John Amyot should not be allowed to leave us because he is needed here, and we cannot spare him." Our answer was: "You are right in a way, we can ill spare John, but our country wants him at the front, and needs him greatly; we therefore think we should encourage him to go rather than ask him to stay."

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Great Britain is making arrangements for 400,000 beds to be ready for the wounded when the great clash comes.

A By-law to raise \$15,000 to pay off a deficit on the new wing of the General Hospital in Galt was carried by a vote of 258 to 176.

The Executive Committee of the Academy of Medicine tendered a dinner at the York Club to the physicians who are leaving on Over-Seas service in connection with No. 4 Base Hospital, on the evening of April 6th.

## Obituary

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### FRANCIS BUTTON MARR, M.D.

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Dr. F. B. Marr, of Ridgetown, Ont., died February 19th.

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### S. GOWAN, M.D.

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Dr. Gowan, of Brockville, died of typhoid fever on March 13th, at the age of forty-one. He graduated from the University of Toronto in 1902.

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### PROF. FRIEDRICK LOEFFLER

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Professor Friedrich Loeffler, who discovered the diphtheria bacillus in 1884, died in Berlin April 9th, aged 63.

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### ARCHIBALD MONTGOMERY, M.D.

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Dr. A. Montgomery, who graduated from Toronto University in 1894, practised for some years in the Peace River District, died in Toronto, March 9th, from disease of the heart. He was a brother of Dr. Douglass Montgomery, Professor of Dermatology in the University of California.

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### GEORGE FORD, M.D.

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Dr. G. Ford, of Stratford, died at his late residence April 19th. He graduated M.B. from the University of Toronto in 1906. He then spent two years in post-graduate work in England and Scotland, after which he returned to Canada, practising for four years in Shakespeare, Ont., and then removed to Stratford.

**JOHN JAMES KINGSTON, M.D.**

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We have to record with much regret the death of Dr. J. J. Kingston, which occurred in his home at Aylmer, March 12th. He graduated M.D. from Victoria University in 1869. After practising for some years at Vienna, Ont., he moved to Aylmer twenty-eight years ago. He was one of the best types of the kind and skilful general practitioner, who was better known and better trained a few years ago than he is to-day.

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**W. JUNIOR PASSMORE, M.D.**

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Dr. W. J. Passmore died at his late residence, Deseronto, March 20th, aged seventy-three. He graduated from Toronto University in 1865. After living in Rockwood, then Conistogo, then Toronto (several years in each place) he went to Deseronto in 1898. In that village he carried on a drug store and did a limited amount of practice. He died in Wellesley Hospital, Toronto, of angina pectoris.

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**WILLIAM WINSLOW OGDEN, M.D.**

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Forty years ago we had two prominent doctors in Toronto, named Ogden. One was Uzziel, who died in January, 1914. The other was W. W., who from boyhood had been delicate. It was supposed that he had a bad form of tuberculosis which kept its hold on him for many years.

About the year 1879 the late Dr. Henry Wright told the writer that "Willie" Ogden had come to his "crisis," and that he could not live for many days. He had had several hæmoptyses, but "the last had been so serious" that recovery was out of the question. And yet this "dying" man outlived all the members of the Toronto School of Medicine Corporation of that year, excepting Dr. Moses Aikins, Dr. Wm. Oldright and Dr. R. A. Reeve.

Not only did he live for many long years, but he was engaged in active practice until about four years ago. Apart from his work in his profession he was a public-spirited man of the very best type. He acted as a trustee on the Toronto School Board for forty-five years, and during all those years took a most active interest in the public schools. He was also a Lic-



ense Commissioner for some years. He took considerable interest in politics, and on account of his great popularity was induced to undertake two heavy contests for the Liberal party, but even his wonderful strength in the community could not overcome Toronto's Tory idiosyncrasies.

Dr. Ogden's phenomenal success in so many directions was very remarkable, especially when one considers the terrible handicaps against him on account of great physical weakness. He had an indomitable will, which, together with his professional ability, honesty, and steadfastness of purpose made him one of the greatest men that the medical profession has known in Toronto.

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### JAMES SPENCE, M.B.

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The report of the death of Dr. Spence, of 189 Jameson Avenue, Toronto, caused great surprise to his many friends, very few of whom had heard anything respecting his previous illness. He had an attack of erysipelas something like a year ago, and his recovery from this was not quite satisfactory. He had an iron constitution, and his life had been exemplary in all respects, and he unfortunately presumed too much on these facts, and could not be induced to take proper care of himself. At last a couple of his medical friends examined him and insisted on his going to bed. So far as they could make out he had general arteriosclerosis with heart and kidney complications, but it was hoped that a prolonged rest would help him materially and add many years to his life. He went into the Wellesley Hospital and died there eight days after his entrance, April 19th, aged sixty-one.

He graduated M.B. from the University of Toronto in 1884, and commenced practice in Toronto in 1886. He was successful in practice and also took much interest in public affairs. He was for nine years a member of the Board of Education, from 1895-1904, and was for one year the Chairman of that Board. In 1898 he contested West Toronto in the Liberal interests for the Local House, but was defeated by a small majority. He was one of the charter members of the Toronto Western Hospital. He was also a member of the Ontario Medical Council in 1898.

Dr. John Hunter, a friend who knew him well, has kindly favored us with the following:

## AN APPRECIATION OF DR. JAMES SPENCE

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JOHN HUNTER, M.B., TORONTO.

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One Sunday morning, some twenty-nine years ago, there walked down the aisle of Chalmer's Presbyterian Church, in company with his wife, a young man of such fine physique, and charm of personality as to attract attention, and to make an impression on the writer, that a score and a half of years only served to deepen, and which, while memory remains, will be held as a sacred trust.

This young physician was the late Dr. James Spence. He was so richly endowed, physically, morally and intellectually, that he soon found a large place in the confidence and in the affections—for he was greatly beloved by his patients—of a very wide circle of both lay and medical friends. He gave to his vocation an untiring service. He always claimed that it was his duty to go wherever and whenever he was sent for. Long distances, night or day, heat or cold, mud or sleet—none of these were made excuses for not going when the call came in. The poorest received as faithful consideration as the richest. He filled up the "role" of the family physician to a completeness rarely witnessed in these days of hyper-attenuated specializing. The patient's welfare—physically, morally and financially—always outweighed every personal consideration. His own convenience, or any enhancement of his reputation were thrust aside in the interest of the patients, so that many operations were done in the privacy of the home at considerable sacrifice of time, and without the accessories and publicity of an operating room. His example in this respect is well worthy careful consideration. It is true, that a well-equipped hospital has many advantages and some of which are imperatively needed in a certain class of cases, but is it always necessary to override the innate dread of going to a hospital, the charm of home associations, the loneliness of the private ward and the financial burdens involved?

Dr. Spence was one of the founders of the Western Hospital. He was a notable figure on its staff from the time it was a little one-roomed dispensary, and all through its development into one of the great hospitals of the city, and was Dean of the staff at the time of his death. He was the senior member of the

obstetrical department, but was also one of the most skillful and successful of its surgeons.

Dr. Spence always held that citizenship was a sacred trust, and therefore took a very keen interest in political and civic life. He held strong political convictions, and though, numerically, his party was much the weaker of the two in his riding, yet he willingly assumed leadership in one contest for the Local House. He did not win. However, it was in educational work that he achieved such marked success. He was elected to the School Board in 1895, and represented his ward continuously until 1904. He was chairman for one year. He had a very intelligent conception of the needs of our educational system, and throughout his long term of office was very aggressive in inaugurating reforms.

Dr. Spence's "passing away" on the threshold of old age has cast a gloom over the staff of the Western Hospital, the members and ex-members of the Board of Education, and over the medical profession of the city. It recalls, to all the older ones, at least, the pathetic words of the poet when he says:

"As life runs on the road grows strange  
With faces new, and near the end  
The milestones into gravestones change  
'Neath every one a friend."

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The profession of Canada sympathize with Dr. G. Stirling Ryerson (Colonel) and his family, Toronto, because of the calamity which has befallen them through death of Dr. George Crowther Ryerson, killed in the battle of Ypres.



## Book Reviews

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*Lectures on the Heart.* By THOMAS LEWIS, M.D., F.R.C.P., D.Sc., Physician, City of London Hospital; Assistant Physician and Lecturer on Cardiac Pathology, University College Hospital, London. Octavo 124 pages with 83 illustrations. Cloth, \$2 net. New York: Paul B. Hoeber, publisher. 1915.

This publication comprises five lectures which were delivered during a visit of the author to America in the autumn of 1914. The subjects lectured upon were "The Excitation Wave in the Heart," "The Electrocardiographic Method," "The Graphic Registration of Heart Sounds," "Observations upon Dyspnoea," and "Observations upon Cardiac Syncope." Each lecture is complete in itself, and exemplifies the skill of the lecturer in dealing with difficult subjects in a more or less popular manner. The close relationships between clinical and laboratory findings and the necessity for precise methods of investigation in the study of cardiac diseases are properly emphasized throughout the work. The refinement of our knowledge of cardiac conditions, which has taken place through the innovation of the electrocardiograph, is well illustrated by the immense number of newly-discovered facts which are quoted by Dr. Lewis. These facts, discovered by a study of the electrical changes associated with heart action, form the chief foundation for Dr. Lewis' lectures, and it is safe to say that no similar work better illustrates the profound alteration which has recently taken place in our conception of the anatomy, physiology, and pathology of the cardiovascular system. In treating the questions under discussion the author has not attempted to deal with them exhaustively, but it is evident that what he states is the recitation of a master of the branch of medicine in which he has especially carried on his investigations. Just as no hospital, which undertakes the care of cardiac cases, can hope to be considered a first-class institution without the possession of an electrocardiograph, so no physician can presume to treat cardiac cases to the best advantage without being familiar with the work of Dr. Lewis. The work is a valuable addition to Dr. Lewis' other treatises, viz., "The Mechanism of the Heart Beat," "Clinical Disorders of the Heart Beat," and "Clinical Electrocardiography."

*International Clinics.* A quarterly of illustrated clinical lectures and especially-prepared original articles. Edited by HENRY W. CATTELL, A.M., M.D., Philadelphia. Vol. 1, twenty-fifth series, 1915. Philadelphia and London: J. B. Lippincott Company.

Always a quarterly of the highest order, this particular volume surpasses all its predecessors in the excellency of its articles. Beginning with some remarks by Osler, there are essays on some phase of nearly all the specialties and the progress of medicine for 1914 is summed up in about 100 pages by the editor. Beardsley describes a visit to McCrae's clinic, and Skillern performs the same service for Murphy's clinic. Some of the other articles are classics in themselves; in fact, with this volume, *International Clinics* reaches its high-water mark.

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*Progressive Medicine.* A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics, Materia Medica and Diagnosis, Jefferson Medical College, Philadelphia; assisted by LEIGHTON F. APPLEMAN, M.D. Vol. 1, March, 1915. Philadelphia and New York: Lea & Febiger.

This volume begins the seventeenth year of one of the most useful publications which comes to the editorial desk. The contents this time are:—Surgery of the Head, Neck and Thorax, Infectious Diseases, Diseases of Children, Rhinology, Laryngology and Otology. Nowhere else in the English language can one so quickly get a grasp of medical progress. The editors of each section are men of well-balanced minds, who state only the *pros* and *cons*, leaving the reader to form his own conclusions.

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*Cancer: Its Cause and Treatment.* By L. DUNCAN BULKLEY, A.M., M.D., Senior Physician The New York Skin and Cancer Hospital. 8vo., cloth, 224 pages. Price, \$1.50 net, postpaid. Paul B. Hoeber, Medical Publisher, 67-69 East 59th Street, New York.

This book contains the lectures on Cancer delivered by Dr. Bulkley last autumn at the New York Skin and Cancer Hos-

pital. The early chapters contain much valuable information as to the frequency and distribution of cancer. Later the author dwells at length on the relation of diet to the development of malignancy, and is of the opinion that by a vegetarian diet much can be done to arrest the condition. While it is doubtful if such views will meet with general acceptance, it cannot be denied that the author cites his case remarkably well. A bibliography of recent cancer research is appended.

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*Diagnostic and Therapeutic Technic.* A Manual of practical procedures employed in diagnosis and treatment. By ALBERT S. MORROW, M.D., Clinical Professor of Surgery, New York Polyclinic. Second edition, thoroughly revised. Octavo of 834 pages, with 860 illustrations. Philadelphia and London: W. B. Saunders Company. 1915. Cloth, \$5.00 net. Half Morocco, \$6.50 net. Sole Canadian Agents, The J. F. Hartz Co., Ltd., Toronto.

The value of this book to the profession is indicated by the early appearance of the second edition. There is no single book which covers in detail the technique of the diagnostic and therapeutic procedures one may be called upon any day to perform. In this book no detail is omitted, full and explicit directions are given for every procedure, while numerous excellent plates augment the text.

In this, the second edition, a thorough revision has been carried out, while many new procedures have been added. Intravenous medication is covered in full, while special chapters are devoted to the administration of salvarsan. We are sure the new edition will continue to meet with the same appreciation from the profession as the former one.

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*Differential Diagnosis.* Vol. II, presented through an analysis of 317 cases by RICHARD C. CABOT, M.D., Assistant Professor of Clinical Medicine, Harvard University Medical School, Boston; Chief of the West Medical Service at the Massachusetts General Hospital. Philadelphia and London: W. B. Saunders Company. 1915.

Ever since Dr. Cabot published his first volume we have waited for another. There is a freshness and a delight in these



pages which every student of medicine ought to enjoy, and every practitioner ought to be a student. It is most refreshing to hear the author express his opinions in no uncertain way of the fads which take hold of the weaker minds of our profession. Throughout the whole book there is that calm, judicial tone, almost mathematical in accuracy, which is the charm of everything Dr. Cabot writes. Nothing has come to our desk for many a long day which has given us so much pleasure.

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*Infection, Immunity and Specific Therapy.*—A practical textbook of infection, immunity and specific therapy, with special reference to immunologic technic. By JOHN A. KOLMER, M.D., Dr.P.H., Instructor of Experimental Pathology, University of Pennsylvania, with an introduction by ALLEN J. SMITH, M.D., Professor of Pathology, University of Pennsylvania. Octavo of 899 pages, with 143 original illustrations, 43 in colors. Philadelphia and London: W. B. Saunders Company, 1915. Sole Canadian Agents, The J. F. Hartz Co., Limited, Toronto. Cloth, \$6 net; half Morocco, \$7.50 net.

Professor Kolmer's book is to laboratory workers the most welcome book published on immunity this year. It covers the great field of the latest tests devised in the research laboratories.

Hitherto these tests have only been available by means of reference to the current medical literature. Some of the work covered in this volume is found only in post-graduate lectures in Universities.

It contains all the essentials hitherto found only in ponderous tomes in German. To-day, thanks to Dr. Kolmer, the most up-to-date and complete book on immunity and specific therapy is in the English language.

## Selections

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### War as a Cathartic

The effect of war may be compared to that of a drastic evacuant; by its means many effete things are got rid of. A nation stands ultimately to profit by a war which inflicts a stern demand upon its resources, just as an auto-intoxicated patient with an inactive liver takes a more pleasant view of life after a free saline purge. A nation which enjoys a prolonged period of peace is apt to acquire many habits detrimental to its interests and progress. Such habits belong to cherishing notions of old-time customs, the preservation of which is harmful to a State; somnolence may take the place of enterprise in business concerns—the manhood of the race, having nothing which calls it fully into being, may cease to show its quality. Then comes a war, and everything is at once changed. The auto-intoxicating effects of peace are got rid of, and as long as the purgative action of the war lasts the nation is required to withstand the disabilities it causes. England is now finding how negligent the drawbacks of peace have made her. In numerous instances she has allowed Germany to acquire a monopoly of manufacture which English enterprise could have averted. This matter is closely concerned with our profession. For example, most of the modern drugs, enjoying a great vogue in this country, are of German origin. Was the discovery and value of acetylsalicylic acid, sold under the German trade name of aspirin, beyond the power of investigation by an English chemist? Was it beyond the power of an English chemist to have produced a preparation which the Germans sold under the name of Lysol? And so the record has been for years; the initiative in drug preparations has always been taken by Germany. The lack of enterprise in this regard on our side has been prodigious. But the war, we may trust, will put an end to this, leading to the manufacture of British drugs by British firms, the novelty and value of which will be able successfully to compete with anything of German manufacture.

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### The Secret of Hate

The German state of mind gives us cause for much interesting speculation. We see frightfulness and hatred on all sides, and we wonder with a comparatively mild and lamblike

inquiry what it all means. We do not understand why the bubbling seeth of gall that culminated in the outpourings of the ferri-cruciferous author of the "Hymn of Hate" should dash itself with daily increasing imprecation against us and all our doings. We see a people formerly painstaking, plodding and vulgar, without being in the least funny, suddenly raging furiously together against us, who cannot waste the energy that reciprocation would require. And the cause? It has been attributed to the Kaiser, to Kultur, to the books of Nietzsche, to the navy of Britain each in turn, and each time with conviction. And all those guesses were wrong. Admitting that the Germans disliked us to begin with, there is only one theory that will account for the geometrical progression of the devouring passion: German hatred grows by what it feeds on. "V" bread is the cause. Bread in Germany is now made of 80 per cent. wheat flour, 10 per cent. rye, and 10 *per cent. potato meal*. The secret is in the italics. Germany is suffering from an excess of starch. Millions of intestines are suffering in a greater or less degree from an inability to tackle successfully the bread of the Government. Dyspepsia, auto-intoxication, with its consequent irritability and despondency, is what is wrong with Germany. The people are not to be blamed. They cannot help it; and with an exacerbation of symptoms we may see the hatred pointed nearer home. This bilious mentality is most noticeable among the civilians. The soldiers do not seem to have the same blind passion against us. They do not get "V" bread. They live on the captured crops of France and Belgium. Their livers are as yet unwrung. So far so good. Diagnosis is the most interesting part of any case. We have diagnosed Germany, and find that the treatment already inaugurated, though radical, is the one most fitted permanently to relieve her symptoms.

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**Emetine in Tuberculous Haemoptysis.** By B. Nicola.

(*Gazzetta degli Ospedali*, Dec. 20, 1914.) The author treated 21 cases of hæmoptysis in tuberculous patients by subcutaneous injections of 0.04 to 0.06 gm. (2-3 to 1 grain) of emetine, repeated at intervals usually of twelve hours. Analysis of the various cases shows that a good result can be counted on only when the hæmoptysis occurs in the early stages of tuberculosis, and there is not much loss of blood, or in cases with high blood pressure and unstable vasomotor system. In all the cases



of this kind the tendency to hæmorrhage was definitely arrested in from 10 to 48 hours. On the other hand, when the hæmorrhage was the result of passive venous congestion, or of an ulcerative process with abnormally low blood pressure, emetine not only failed to arrest the hæmorrhage, but showed a tendency to induce toxic symptoms.—*The Prescriber*.

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**Case of Phenacetin Poisoning.** By P. Hamill and T. G. M. Hine.

(*Lancet*.) The authors report a somewhat unusual case of poisoning by phenacetin in a lady, aged 37. The patient was under treatment with a vaccine of a paratyphoid organism. She complained of headache, and was advised to take a 5 grain phenacetin tablet every half hour. At this time her menstrual period had commenced, but she had not disclosed this fact to her physician. She seems to have taken a considerable number of the tablets, and when seen she was suffering from diarrhœa any cyanosis. Brandy was given. Later in the day severe vomiting set in, with signs of collapse and mental wandering. Pulse 120 and very feeble; respiration shallow. Strychnine and digitalin were given hypodermically, hot bottles were applied, strong coffee and small quantities of champagne administered, and oxygen given. Hot water was given frequently to wash out the stomach, but no tube was used. The patient eventually recovered. The authors remark that the onset of catamenia is an unfavorable time to administer a drug like phenacetin.—*The Prescriber*.

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**Liquid Paraffin and Castor Oil in Chronic Dyspepsia.** By Charles M'Neil.

(*Edinburgh Med. Jour.*, Feb., 1915.) The author has found liquid paraffin and castor oil, given in the form of emulsions, of great value in the treatment of various and apparently distinct types of chronic dyspepsia in childhood. These types are: (a) Malnutrition, frequently associated with chronic diarrhœa, and only seldom seen with constipation; (b) enuresis with dyspeptic symptoms; (c) recurrent vomiting (cyclical or bilious vomiting); (d) recurrent attacks of fainting or sudden pallor; (e) urticaria or eczema, with dyspeptic symptoms. The emulsions of liquid paraffin are given in small, non-purgative doses, the former being given in doses of 30 minims, and the

latter in doses of 15 minims, of the essential ingredient thrice daily. A useful adjuvant to these drugs is a powder containing one grain of calomel with sodium salicylate 2 grains, and sodium bicarbonate 5 grains—or with rhubarb one grain, and magnesium carbonate 3 grains—a powder being given each night. The action of the emulsions is entirely local and confined to the mucous membranes of the alimentary tract, and is probably a sedative one. The child's dietary should be carefully supervised, and the general health attended to. Notes are appended of illustrative cases in each of the groups above mentioned.—*The Prescriber*.

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### **The Schick Test for Diphtheria**

A new test for diphtheria, known as the Schick test, about which much has appeared in the lay press, has recently been tried extensively in some American cities, and has been found to furnish a reliable indication as to susceptibility or immunity to the disease on the part of individuals. It is based on the principle that the blood of many normal individuals contains diphtheria antitoxin in sufficient quantity to give natural protection, and in such cases injection of antitoxin is unnecessary. A small quantity of diphtheria toxin (one-fiftieth of the minimum lethal dose for a guinea pig) is diluted to 0.1 c.c. of fluid, and injected into (not underneath) the skin. A raised whitish spot is formed, which in from 24 to 48 hours develops a characteristic reaction. A positive reaction, indicating that the patient is susceptible to diphtheria, consists of a reddish-blue coloration about the point of injection, with slight œdema, which disappears in about 48 hours, leaving a slight pigmentation. A negative result, that is absence of this reaction, implies that the patient is immune to the disease.

**The value of the test** during a diphtheria epidemic is obvious. It shows where prophylactic antitoxin injections are necessary, and it has also proved of value in determining the dose of antitoxin required in both prophylactic and curative treatment. Schick declares that a single dose of the properly determined quantity is all that is necessary: persons ascertained to be susceptible should receive an injection of 50 units of antitoxin for each kilogram of body-weight, while those already suffering should be given 100 units in mild cases, up to 500 in severe cases, for each kilogram (2 1-5 pounds) of body-weight.—*The Prescriber*.

# Convalescence and Digestion

are so closely allied that one cannot progress without the aid of the other. It would seem, therefore, the height of folly to burden a convalescent's stomach with foods which require more than minimum energy to render them assimilable.

Physicians recognize that foods properly prepared and which are easily digestible serve a great purpose in the regeneration of the convalescent.

## The Cereal Food

# Grape-Nuts

eaten with milk or cream, in proportion as fats may be indicated, will be found a most satisfactory adjunct to the dietary of a convalescing patient.

Grape-Nuts food is readily digested, quickly assimilated, and its wheat and barley content with its vital phosphates will do much toward upbuilding a constitution which has been laid waste by a ravaging disease.

## "There's a Reason"

The *Clinical Record*, for Physicians' bedside use, together with samples of **Grape-Nuts**, **Instant Postum** and **Post Toasties** for personal and clinical examination, will be sent on request to any Physician who has not yet received them.

---

Canadian Postum Cereal Company, Limited, Windsor, Ont.



## Miscellaneous

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### A New Proteid-Silver Compound

An agent for the treatment of acute inflammations of mucous membranes is being announced by Parke, Davis & Co., and promises to meet a real need in medical practice. It is a soluble silver-proteid—an active germicide, astringent and sedative—and is offered under the name of Silvol. The product contains about 20 per cent. of silver. It occurs in scale form, has a dark metallic appearance, and is readily soluble in water. Silvol solutions are not precipitated by proteids or alkalies or any of the reagents that commonly affect other silver compounds in solution. They do not coagulate albumin or precipitate the chlorides when applied to living tissue.

The use of Silvol is suggested in the treatment of acute gonorrhœa and inflammatory affections of the eye, ear, nose, throat, vagina, etc. The product is supplied in bottles containing one ounce and in 6-grain capsules (bottles of 50). It is non-irritating and non-toxic in proper solutions.

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### Is Conception a Voluntary Act?

We have received from a layman, prominent as a minor poet and general writer, an inquiry prompted by the stories coming from France and Belgium of the preparations made to take care of the expected shoals of illegitimate children fathered by the soldiery. Inspired doubtless by his poetic temperament, our correspondent believes that as the women were in most cases French or Belgians, and the men invaders, intercourse could have been only under duress, and he seems to take it for granted that no conception will follow rape. Indeed, he insists that several New York physicians whom he consulted on this point corroborated his belief. It may be that New York physicians, being little likely to become involved in legal questions, do not devote as much study to medical jurisprudence as their rural confrères, but that many of them labor under the delusion that rape will never be followed by conception is simply incredible; we are forced to believe that our inquirer's friends misunderstood him. That such an idea may prevail among the laity is quite possible, for many of them have the weirdest notions concerning sexual mat-

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Salacetic Acid, as is well known, is made by the action of Acetyl Chloride on Salicylic Acid, and has been extensively prescribed under the names of "**Acetyl-Salicylic Acid,**" "**Salicyl-Acetic Acid**" and "**Aspirin.**"

Many physicians of late have prescribed **Strychnine** in combination with **Aspirin** for the sake of its stimulating effect, but the ordinary Salts of Strychnine do not act simultaneously with the Antipyretic, and do not lend themselves to the correction of the gastric troubles following the use of **Aspirin.**

Professor Alex. B. J. Moore, Dean of the Montreal College of Pharmacy and head of our Central Laboratories at Montreal, has produced an almost tasteless **Salt of Strychnine**, which is one hundred and twenty times more soluble than the alkaloid itself. It produces in the same dose the Strychnine characteristic effects upon the heart and the central nervous system.

The use of this agent in combination with **Aspirin** represented in "**National Dolorant Tablets,**" produces the desired combined effect, and allays to a remarkable extent the gastric disturbances following the use of a combination containing a less soluble Salt of Strychnine.

Free sample supplied to physicians on application.

Put up in Bottles of 100 Tablets

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ters; there are women past the climacteric, for example, who believe that there is a common opening into the rectum and vagina, a cloaca in fact such as exists in birds; and a very common belief is that they know the moment when conception begins. A little consideration, however, should serve to dissipate the delusion concerning the necessity for voluntary participation in intercourse as a necessary preliminary to conception. If there was any such necessity, whence would come the demand for contraceptive methods? Nature has been too cunning in her care for posterity to allow reproduction to depend on the will. A heavily narcotized woman can conceive as readily as one in full possession of her senses; since the pains of childbirth can be banished by narcotics, *à fortiori* so can the pleasures of intercourse. Briand and Chaudé insist that amorous women are less likely to conceive than those to whom intercourse is repugnant. The success of artificial fecundation in the hands of Gérard, many years ago, and more recently in those of German experimenters, serves further to clinch the evidence.

There will be, therefore, beyond any doubt, a tremendous influx of illegitimate infants into the war territory, beginning soon and extending to the usual number of months after the end of hostilities. As the German medical weeklies report that gonorrhœa is a source of worry and dismay to the medical officers of the army, it is to be hoped that the unhappy hosts of illegitimate children will have at least the benefit of Credé's prophylactic collyrium, and not suffer from blindness in addition to their other troubles.—*New York Medical Journal*.

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### Glyco-Thymoline for Colon Flushing

Inactivity of the colon, with its retention of faecal matter and consequent distention and interference with the work of the rectum, is a prime factor in the causation of hæmorrhoids, constipation, and, in the event of septic matter in the faeces, auto-infection.

The rapid elimination of all septic matter, and the promotion of an aseptic condition of the intestinal canal is within the province of Glyco-Thymoline. One pint of a ten per cent. solution at a temperature of 100° introduced well up into the colon will produce a quick evacuation without pain or discomfort. This followed by three or four ounces of a twenty-five per cent. solu-



# Athletic Activities

revive with the advent of Spring, and a natural increase in cases of traumatic synovitis, bruises, simple and infected wounds, contusions, etc., call for

*Antiphlogistine*  
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as a safe, convenient, antiseptic application with strong antiphlogistic action.

**Adopted by European War Hospitals.**

It is well to remember that Antiphlogistine stands alone as a non-toxic, non-irritating abstractor of fluid exudates in superficial inflammations, and is

the only remedy that, thru an inherent hygroscopic property, will relieve deep-seated congestion by inducing superficial hyperemia, and that, without irritation.

*Physicians should WRITE "Antiphlogistine"  
to AVOID "substitutes."*

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tion at the same temperature, retained, will speedily restore to normal conditions by inducing exosmosis, relieving pain by its anæsthetic property and promoting a general aseptic condition by its power of cleansing.

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Marinesco insists on the constancy of a local hyperthermia in the region of the joints affected by arthropathy and at the site of the spontaneous fractures in tabes, and also on the great frequency of vibration-anæsthesia at these levels. The hyperthermia can be felt by hand; the local skin temperature is 2 to 4 degrees higher than on the opposite limb; the skin is sometimes reddened; the hyperthermia may last for months or years, but tends to diminish in proportion to the lessening of the effusion; the artery of the affected limb beats more strongly than its fellow on the sound side. Occasionally the degree of the vibration-anæsthesia lessens progressively as the tuning-fork is moved away from the affected joint.—*Compt. Rend. Soc. de Biol.*, 1914, lxxvii, p. 592.

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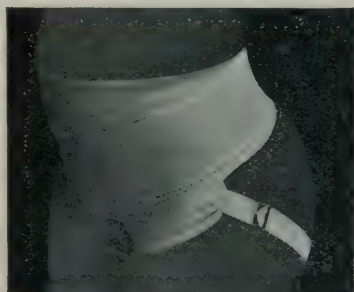
(*Riforma Medica.*) Recent observers are more and more inclined to the opinion that it is not necessary greatly to raise the endopleural pressure, nor completely to obliterate the function of the lung, in order to obtain good results in pneumothorax. In addition to compression and immobilization of the lung, other factors must be considered; it has been shown that simple introduction of nitrogen into the pleural cavity produces an improvement in the patient's condition, with diminution of fever. This improvement occurs even when the endopleural pressure is still negative, and the lung fully expanding. Some, as Cantani, think that the nitrogen is absorbed, and thus exerts a beneficial action on the morbid process. Others, as Pietro and Pagano, are of opinion that stimulation of the pleura by the gas causes the endothelium to produce antitoxic and immunizing substances. The writer has, for over a year, in his clinic in Genoa, used nitrogen saturated with the vapor of eucalyptol, thymol, and pinol. This medicated mixture was well tolerated, and gave beneficial results in every case. His opinion is that the antitoxin production explanation is not satisfactory, and advances the theory that the lymph exchange between the

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visceral and parietal pleura allows, in diseased conditions, the entrance of bacteria and toxins into the general circulation by this route. The cutting off of this lymph circulation in artificial pneumothorax localizes the tuberculous condition in the lung, and prevents the absorption of toxins, thus accounting for the lowering of fever and diminution of the phenomena of intoxication. The mechanism then is an interruption of the lymphatic current from the lung, with inhibition of the admission into the circulation of fever producing and toxic substances, and production of lymph stasis in the lung. Therefore bilateral pneumothorax should be practised in affections of both lungs.—*N. Y. Medical Journal*.

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Heiman considers that the following sign is valuable in the diagnosis and prognosis of chorea in children. The palm of the patient's left hand is placed upon the palmar surface of the observer's right hand. Then the thumb of the patient is embraced by the index and middle fingers of the observer, and the other four fingers are firmly grasped by the remaining fingers of the examiner. The right hand of the patient is similarly grasped by the left hand of the physician. The attention of the patient is then engaged by the asking of some simple question, while he is to look into the eyes of the examiner. If the patient has chorea the twitching of the hands will be increased each time his attention is engaged by the mental concentration required to answer a question.—*Arch. of Prognosis*, April, 1914.

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Three cases of Banti's disease were studied by Sailer. In all three splenectomy was performed. Two of the patients recovered and one died, but in the last case death was due less to the operation than to the massive hemorrhages that preceded it, and in the hope of stopping which the operation was performed. The interesting features of the first case are the comparatively brief course, two and one-half years; the severe paroxysms of pain which can be ascribed to hemorrhages not only from the gastro-intestinal tract but also from the kidneys; the large size attained by the spleen in the short time; the absence of any sign, macroscopically, of change in the liver at the time of the operation; a prolonged and complicated post-operative period and ultimate apparent recovery.—*Pennsyl. Med. Journ.*



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### **Tuberculosis of the Knee**

The prognosis and treatment of tuberculosis of the knee in childhood are discussed by J. W. Sever and E. W. Fiske, Boston (*Journal A. M. A.*, April 24, 1915). They point out the formidable nature of the affection, the uncertainty of its prognosis, the complications, recurrences and aggravations which accompany it, and its disadvantageous pathologic conditions. Deformity is the common consequence, and the excision of the joint, which would be the most successful method with adults, cannot be well resorted to except as a last resort in children. Here the problem of growth has to be considered, and any obstruction or interference with even a small part of either epiphysial line will produce shortening of the leg, often so great as to be worse than leaving the matter to nature. The form of treatment to be selected is important, and must be preceded by a correct diagnosis. Certain facts, taken in combination, point definitely to tuberculosis of the knee. These are, briefly, "a history of long duration of limp and pain; trauma (in about a third of the cases); family predisposition or exposure to tuberculosis; exacerbations; loss of appetite, sleep and weight; night cries; slight, but not marked, fever; a knee which is hot, swollen, tender, and held in flexion with spasm, boggy rather than filled with frank fluid, with a synovial and often a bony thickening apparent; atrophy of calf and thigh; a positive tuberculin (von Pirquet) reaction with a relatively low leukocytosis; and an appearance by Röntgen ray which early shows in addition to fluid in the joint a rarification and enlargement of the epiphysis of both bones with a squaring of their corners (as seen antero-posteriorly) and a deepening and squaring of the intercondylar notch, with later a focus of bone destruction becoming apparent." The early diagnosis is often very difficult, and much valuable time may be lost. The operative treatment is distinctly limited, and the mere neglect of the immediate immobilization of the knee is deleterious, and many ordinary measures, such as incision and drainage, may be followed by serious infection. Absolute rest and non-interference are the best weapons for combating the conditions. The authors review the cases treated at the Children's Hospital for thirty years (1880 to 1910 inclusive) in which a satisfactory record has been obtained. In brief, the usual treatment consisted of protection from motion and weight bearing, by a plaster cast in combination with a Thomas knee splint, with or without traction, a high sole on the unaffected leg and crutches being supplied. The cast and splint were kept on and the child allowed



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—*British Medical Journal*

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to go about until marked improvement was shown. Then the cast and splint were gradually omitted. In acute cases, with much spasm, pain and deformity, rest in bed with traction to counteract the spasm and reduce the deformity was considered essential until the most acute symptoms subsided. Whenever possible, deformities were corrected, if possible each time the plaster was changed. The operations performed were mostly for forceful correction, and in obstinate cases tenotomy and osteotomy of the femur. Incision and drainage of abscesses were used when it seemed necessary, and arthrectomy or erosion was performed in cases in which discharges and acute symptoms persisted. In the hundred and twenty cases operated on, as compared with one hundred and thirty-one without operations, there were unsatisfactory results in 50 per cent., while only 25 per cent. of the unoperated group were unsatisfactory. Flexion deformity was also less than one-half as frequent as in the operated cases, which was also true of ankylosis and limitation of motion. The best results, taken all together, were in the few cases that required only splint. In very severe cases, the results were naturally less favorable and the cases with abscess gave poorer results, especially those operated on. The duration of treatment was also less in the non-operated cases. It is difficult to say just when a tuberculosis joint is cured, for some become acute after long periods of quiescence. Operative procedures should be avoided, on the whole, as much as possible.

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# The Canadian Practitioner and Review

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TORONTO, JUNE, 1915.

No. 6

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## Original Communications

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### PRESIDENT'S ADDRESS, ONTARIO MEDICAL ASSOCIATION \*

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BY DR. D. J. GIBB WISHART, TORONTO.

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Fellow Members of the Ontario Medical Association:

This gathering to-night in the City of Peterborough marks an epoch in the history of our branch of the Canadian Medical Association in that for the first time in our history we have elected to hold our sessions in one of the smaller centres. The burden thus thrown upon a comparative few of our medical brethren has been, as you will agree from the welcome you have already received, most loyally shouldered, and the experiment has become a complete success. On your behalf, I beg to thank Dr. Cameron and the members of the Peterborough Medical Society for their hard, resolute and unfailing labor in the preparation involved for our gathering here this week.

For the first time, too, we meet in conjunction with the Provincial Officers of Health, and I trust that the result of this union of effort will be followed up by a continuation of these combined meetings. It will benefit both associations. United we stand, divided we might fall.

Before proceeding to the subject proper of my address this evening, I must beg your forbearance while I refer to several matters of common interest to us as professional brethren.

We are, as a nation, in the midst of a great war, and we, as a profession, have risen to the emergency in Canada, and therefore naturally in the Province of Ontario.

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\* Read before the Ontario Medical Association, Peterborough, May 26th, 1915.



“ Remember when those tales you read  
Of rude but honest ‘ Canayen,’  
That Joliet, La Verandrye,  
La Salle, Marquette, and Hennepin  
Were all true ‘ Canayen ’ themselves—  
And in their veins the same red stream,  
The conquering blood of Normandy,  
Flowed strong, and gave America  
Coureurs de bois and voyageurs  
Whose trail extends from sea to sea.”

It is a matter of pride to be able to state that thus far we have provided:—

1. A Base Hospital, No. 4, from the University of Toronto, of 1,040 beds, a staff of 35 physicians and surgeons and 20 medical students in the rank and file.

2. A Casualty Clearing Hospital, No. 2, with a staff of physicians and surgeons, and over 39 medical students and young graduates in the rank and file.

3. Two further hospitals have been offered to the government, one by the Western University, and the second by the Medical Society of the city in which we are meeting now. The handsome offer of the Peterborough Medical Society, which numbers 25 members all told, was to furnish a Stationary Hospital, with medical staff, 35 nurses and rank and file, together with the needful supplement of the government issue in the way of initial supplies, and in addition, to guarantee \$350.00 per month until the close of the war, to be used for comforts and necessities for the men. It will be difficult to find an equal of this offer, and you will agree with me that the Peterborough medical men are a force to be reckoned with. Congratulations to the Medical Society of Peterborough.

4. Over forty medical officers have accompanied regiments, in field ambulances, etc., and many more are awaiting orders. Not a few of our brethren are enrolled in the combative ranks, and some of these have already shed their blood for our liberties. In No. 1 General Hospital, under the command of the last president of the Canadian Medical Association, our genial Dr. Murray MacLaren of St. John, there were four officers from Ontario, and in No. 2 General Hospital, fourteen. In reply to a request from the British War Office for Canadian medical men, offering to give them temporary commissions in the Royal Army Medical Corps, over 125 responded from Ontario, and

thirty-five of these are now on their way to their posts of duty. In addition to this long roll, training units were established in each of our Provincial universities, in which our students of medicine were not behindhand in enrolling. It has been impossible for me to obtain the exact figures, but in the Western University, 160 students were in training. Queen's has sent with the Army Medical Corps, first contingent, three doctors and seven undergraduates; with the Duchess of Connaught's Hospital at Cliveden, twenty-one graduates and nine undergraduates, and with No. 6 Field Company of Engineers, three medical undergraduates; and these are additional to the large body of students who took the Officers' Training Corps drill. In Toronto there were over 1,800 students in the O. T. C., of whom 450 were from the Faculty of Medicine. Long after the war has ended, and God grant it may be soon, the effect of the self-sacrifice exhibited by the practitioners and students of medicine in leaving wives, children and lucrative practices, or in abandoning a course of study attained after years of effort, just when the goal came into view, will continue to clarify our vision, and give us a truer perspective. We are reminded of the words of our Master, "But I am in the midst of you as he that serveth." Noblesse oblige.

The Germans may at least be indirectly credited with one good deed—in that, owing to the necessity which arose last September, that holders of the license of the College of Physicians and Surgeons of Ontario should proceed with the Canadian forces to the British Isles, and later to the Continent, and thus work under the War Office, it became obligatory upon the part of our Provincial Council to take the necessary steps to establish medical reciprocity with Great Britain. The Council passed the enabling legislation on the 22nd of December last, and when the Ontario House rose at Easter, the Lieutenant-Governor gave the royal assent to the Ontario Medical Amendment Act, 1915. A doctor holding a qualification to practise in Britain may now register in Ontario, and *vice versa*. Thus Ontario is now in line with the Provinces of Prince Edward Island, Nova Scotia, New Brunswick and Quebec, and a step forward has been taken in regard to the creation of one professional standard for the British Empire. Those gentlemen who drew up the provisions of the Act of British North America and brought into being our Dominion of Canada, may have acted wisely in leaving the control of education to the respective provinces, but should, in the light of subsequent events, have ex-

cepted the profession of medicine. We have long labored under the yoke then placed upon our necks, and every step in the process of release must be hailed with triumph, for we belong to a profession which is bound only by the inadequacy of the human mind to comprehend the height and depth and breadth of the states of health and disease. As Osler writes, "A man who presents evidence of proper training, who is a registered practitioner in his own country, and who brings credentials of good standing at the time of departure, should be welcomed as a brother, treated as such in any country, and registered upon payment of the usual fee." And again, "Medicine is the only world-wide profession, following everywhere the same methods, actuated by the same ambitions, and pursuing the same ends. This homogeneity, its most characteristic feature, is not shared by the law, and not by the church, certainly not in the same degree. While in antiquity the law rivals medicine, there is not in it that extraordinary solidarity which makes the physician at home in any country, in any place where two or three sons of men are gathered together. Similar in its high aims and in the devotion of its officers, the Christian Church, widespread as it is, and saturated with the humanitarian instincts of its Founder, yet lacks that catholicity—*urbi et orbi*—which enables the physician to practise the same art amid the same surroundings in every country of the earth. There is a unity, too, in its aims—the prevention of diseases by discovering their causes, and the cure and relief of sickness and suffering. In a little more than a century, a united profession, working in many lands, has done more for the race than has ever been accomplished by any body of men before."

In the *British Medical Journal* of November 21st last, there was published an article by Prof. C. Jacobs, of the University of Brussels, in which in few yet pregnant sentences he drew a picture of the hideous sufferings into which the cruelty of Germany had plunged our Belgian confreres in medicine and pharmacy. At least one-fifth of the two professions had been reduced to abject poverty. "Of these," says Prof. Jacobs, "many of them, victims of a barbarian foe, are homeless, deprived of their laboratories, instruments, and their medical stores. What will become of those that still remain of our people, threatened as they are by the grim havoc of war and by contagious disease, its constant follower? I have witnessed such misery amongst them. Some have had to work as navvies in order to have a few pence in their pockets; others have told me



that they had not seen bread for a fortnight, but had lived exclusively on potatoes. Others had a meagre bunch of straw laid on the bare ground as a bedstead; the only pair of boots owned by one of them was falling to pieces in tatters. Men I have seen were dressed in torn garments and their children were in rags. One of my colleagues had to live on wayside herbs for three days and three nights, and his wife shared his fate. A professor of a university, bereft of everything, was, when I saw him, in dire want of a bed, and another of equal academic standard was wandering haggard over the countryside, searching in vain for a beloved family. And some of our ranks have been taken as hostages, others have been shot, and their widows and orphans have been deprived of everything."

This appeal to our sympathies at once brought about in Britain the foundation of a most representative committee, under the chairmanship of Sir Rickman J. Godlee, who visited this country in 1913, and upon his request a committee for Canada was shortly afterwards formed, consisting of the leading representatives of the profession in every province. I am happy to state that the response from our brethren throughout the length and breadth of the Dominion has been most enthusiastic, prompt, and self-sacrificing, and that the cash in hand to date amounts to the handsome sum of \$7,622.00, of which Ontario has provided the sum of \$4,919.00. In addition to this, the sum of \$2,600.00 was forwarded by a French committee in Montreal, so that the total for Canada amounts to \$10,222.00. From the *British Medical Journal* of the 24th April, we learn that the British committee to whose care the Canadian committee has remitted to date \$6,916.00, that the sum of £964 10s. has been forwarded to Belgium to meet the urgent needs of Belgian doctors and pharmacists remaining in their own country, while a further sum of £350 had been devoted to the purchase of drugs and clothes, and by way of loans. The total sum received by the British committee according to the same authority amounts to £10,012 11s. 2d.

While we are pleased at the results attained, we must remind ourselves that if poor Belgium has passed through the fire already, its furnace of suffering will be heated yet again seven times, in the slow and awful torture which must be inflicted upon its cities and citizens during the process of the expulsion of the ruthless foe.

As Prof. Sarolea has stated in his Toronto addresses, so full of soul anguish, and yet so resolute, Belgium is between the

upper and nether millstones, and will be ground to dust. The need for help will outlast the war, and neither must our purse-strings be drawn, nor our sympathies dried up, until our professional brethren in Belgium are once more reinstated. "When the day comes for the nations to adjust the balance and right the wrongs which Belgium has suffered, one of the first duties of the medical profession throughout the world will be to see that the practitioners who have played so distinguished and useful a part in the life of their country are reinstated. We cannot at once rebuild the houses of Belgian doctors, or restock the shelves of Belgian pharmacists, but it is clear that the people require prompt medical attention, and it is a debt of honor to try and meet the immediate necessities of their doctors and pharmacists."

To-morrow afternoon there will be placed before you for consideration the results of the labors of Dr. Wallace's committee upon affiliation with the County and Town Medical Societies. I trust that you will decide to adopt the recommendations offered.

Were admission to the County and Town Society, within whose borders a physician practises, made the one portal of entrance to the Provincial body, and through the latter to the Dominion Association, all doubt would be removed as to the eligibility of the candidate. He would literally be judged by his peers, a truly British method. On the other hand, the impossibility of obtaining admission to the Dominion or Provincial body, if refused by the local Society, would serve to regulate the steps of the beginner in practice. It is in the smaller towns and country districts that conditions are most favorable for mutual misunderstandings. Only those who have been brought up in such surroundings can appreciate how hard it is for physicians to keep on good terms with one another. The practice of medicine calls equally for the exercise of the heart and the head.

The association of all the physicians of a district in a society where they may frequently meet with one another, and so learn to value the good points, and excuse the bad points of their confreres, will do much to unite the profession in this Province and prevent misunderstandings. These beneficial results are obvious, and extremely valuable, but there is another end to be gained from the scheme proposed, an end to which no real approach has ever been made by our Canadian profession hitherto, namely, the enrolment of every member of the profes-

sion in an organized whole, which may speak with the authority consequent upon its composition, upon any matter which affects its welfare or that of the health of the public. At present associations and societies may only speak for their respective members, and a government may decide to consider these non-representative; whereas there are many questions, the solution of which cannot be properly secured without the aid of our profession.

Assemblies, conferences and synods speak for every member of the various religious bodies, and the benchers for the lawyers, but our profession has no united voice, nor will it have until each practitioner be enrolled in a common membership of a common body, and recognize that he belongs to a guild, the interests of which are incompatible with all professional bitterness, rancor or personal hostility. The brethren must dwell together in unity.

The attention of the representatives in both houses of parliament should be directed by our members to the Act for the curtailment of the sale of habit-forming drugs—opium, heroin, codeine, cocaine and morphia—which was enacted in Washington recently. The above-mentioned drugs, together with all other like preparations, are withdrawn from sale, except under very restrictive conditions, which, if carried out in the spirit of the Act, will tend to minimize the evil, if not wipe it out altogether.

“No person or company may sell one of these articles, except under license of the Bureau of Internal Revenue. The consumer of the dangerous drugs must present either a prescription or an order written by himself, for the drug in question, which order calls for a full description of the purchaser, including age, color of eyes, occupation, etc., and is later examined and reported upon by a government inspector. The sale of the drugs, in fact, is made so irksome to both parties in it, that it is expected that the drug victim, or the possible drug victim, will shrink from the red-tape and the prospect of exposure which the law has provided for drug buyers and users.” It is stated that the result of the passage of this law already is that every institution for the treatment of the victims of the drug habit is crowded with patients who would rather be freed from its curse than attempt to satisfy their cravings under the difficulties provided by the act. Our own laws in regard to the sale of similar drugs may be improved with advantage to the inhabitants of Canada, and the results of the passage of this act in the United



States should be carefully noticed with this in view. I trust that you will individually keep your member posted so that a further important step in preventive medicine may be gained.

The subject which I have chosen as the main topic of this year's presidential address is "The Evolution of the Specialist in Oto-Laryngology," yet what I have to say will apply equally, perhaps, to any of the so-called specialties. The subject conveniently arranges itself under four heads:—

- (a) The definition of a specialist;
- (b) The need for his existence;
- (c) The training required;
- (d) The nature of his relationship to the general practitioner.

In developing this subject I shall require to use some plain speech, because between the degrading but alluring effect of the establishment of certain polyclinics or post-graduate schools, where, to quote the Carnegie report, "the training is of a practical, not of a fundamental, or intrusive kind, calculated to 'teach the trick,' or perhaps better to exhibit an instructor in the art of doing it," and, on the other hand, the desire of the wearied general practitioner to get into something "easy," this country is threatened with becoming burdened by a load of ill-trained specialists.

Believing that in the words of Oliver Wendell Holmes, "fear of open discussion implies feebleness of inward conviction and great sensitiveness to the expression of individual opinion is a mark of weakness," and disclaiming all intention to offend, I invite your attention and forbearance.

A specialist has been defined as "one who knows as much about all parts of his subject as any, and more about one part of it than any other," but I would paraphrase this definition and bring out its meaning more fully. A specialist is one who, *after* completing the usual time of medical study and obtaining his degree, pursues a further course of instruction over a number of years, in some limited field, and abandoning the practice of every other branch of medicine, confines himself solely to that branch in which he has thus become qualified to speak with authority. No one has a right to pose as a specialist who has not proved his title to do so by such a prolonged course of special study, and let me remind you that the cards which some of our members permit to appear in the advertising columns of the newspapers, reading somewhat as follows, "Dr. ———, Phys. and Surgeon, Graduate of the ——— University, Licentiate of

the College of Physicians and Surgeons of Ontario (as if he could practise at all without this); Special attention given to Diseases of the Eye, Ear, Nose and Throat," are strictly unethical, according to the code of this Association, and in my personal opinion, beneath contempt.

The backbone of our profession is the general practitioner. As Osler writes, "There never was a time in our history in which he was so much in evidence, in which he was so prosperous, in which his prospects were so good or his power in the community so potent. He still does the work, that great mass of routine practice which brings the doctor into every household in the land, and makes him, not alone the adviser, but the valued friend. He is the standard by which we are all measured. What he is, we are; and the estimate of the profession in the eyes of the public is their estimate of him. A well-trained, sensible doctor is one of the most valuable assets in a community, worth to-day, as in Homer's time, many another man. To make him efficient is our highest ambition as teachers, to save him from evil should be our constant care as a guild."

But medicine advances by leaps and bounds, and it is absolutely impossible for one brain to compass the length and breadth of medical knowledge. Nor is it reasonable that the man just graduated should be expected to be equipped with a full knowledge of medicine, embracing all the newest procedures, and ultimate tests in every specialty. If this were demanded, the curriculum of the medical course would be stretched out by many years, and the task of entering upon the practice of the healing art, already difficult enough, would be made impossible for the average man or woman. In addition, the pecuniary results to be obtained afterwards would not be worth the investment of time and money. Our license to practise does not even yet demand that the graduate be able to recognize a *membrana tympani*; the hearing of a few lectures will not teach him this. In the Universities of McGill and Toronto, it is only very recently that the course has been made clinical, instead of didactic.

The public is both ignorant and superstitious; they have been accustomed to think that the letters M.B. or M.D.C.M. mean that the owner of these mystical characters is possessed of a complete knowledge of all things medical. On the other hand, you and I know that we are vastly ignorant, and that medicine is far from an exact science, and therefore we should strongly combat this wrong opinion on the part of the general public.

Reason then is there, and the very best, that men should specialize, should fit themselves to know all there is to know upon some one of the various branches of the healing art.

The specialist exists to give assistance to his brethren, the general practitioners, not to enter into competition with them in any shape or form.

But if the specialist exists for the assistance of the general practitioner, I would have the latter fixed in his determination to demand high qualifications of those whom he calls upon for such assistance. What should these qualifications be:

1st. An excellent general preliminary education, including a knowledge of the more important modern languages, an indispensable accomplishment for one who must follow the international literature of the day.

2nd. A post-graduate position as hospital interne, preferably in medicine, but better still in both medicine and surgery.

3rd. A year or more in general practice, during which he may try himself out, and when he chooses his specialty, choose wisely.

4th. If the choice be Oto-Laryngology, then must there follow an internship of at least eighteen months, devoted exclusively to the special subjects, and where he will toil daily with patients in a special clinic, mastering the details of examination and diagnosis, and be trained under a master eye in the technique of operations.

5th. Lastly, he must place a coping stone of a further year at some university where he will obtain post-graduate instruction upon,

- (1) Clinical diagnosis and treatment.
- (2) Functional tests especially.
- (3) Bedside work on surgical cases.
- (4) Surgical practice on the cadaver.
- (5) Practical treatment and minor operations in the out-patients' ward.
- (6) Demonstrations and lectures on normal and pathological anatomy, histology and physiology.
- (7) Diagnosis and pathology of labyrinth diseases.

When he finally seeks the suffrage of his fellows of the general profession, he must become attached to a hospital where he can maintain his contact with a public clinic, for otherwise he can never hope to advance, or even to keep abreast of his subject.

I have given you above the qualifications demanded by the



American Laryngological, Rhinological and Otological Society, and also of the hospital where I have the honor to control the Oto-Laryngological service.

Am I too ambitious in making these demands? No, if we, as specialists, are to deserve the respect of our confreres, we can demand no less.

Unfortunately, although specialism, with its implicit claim of superior skill in one direction, is now recognized as both efficient and useful, it remains on a very informal basis, and few universities are yet equipped to give adequate preparation for specializing, but a better day is dawning, and this function will be recognized by the universities, and indeed specialization will not be allowed without such university post-graduate training.

As the Carnegie report says: "Improved medical education will undoubtedly cut the ground from under the independent post-graduate school as we know it. This is not to say that the under-graduate medical curriculum will exhaust the field. On the contrary, the undergraduate school will do only the elementary work; but that it will do, not needing subsequent or more elementary instruction to patch it up. Graduate instruction will be advanced and intensive, the natural prolongation of the elective courses now coming into vogue. For productive investigation and intensive instruction, the medical school will use its own teaching hospital and laboratories; for the elaboration of really thorough training in specialties resting on a solid under-graduate education, it may use the great municipal hospitals of the larger cities. But advanced instruction along these lines will not thrive in isolation. It will be but the upper storey of a university department of medicine. The post-graduate schools of the better type can hasten this evolution by incorporating themselves in accessible universities, taking up university ideals, and submitting to reorganization on university lines."

The truth is, we have too many so-called specialists, the damaged fruit of commercial post-graduate colleges, managed by a board of stockholders for the sake of the almighty dollar. The unfinished product of these institutions has resulted in the establishment of a class of mediocre specialists, who often bring discredit upon the whole institution of specialism. To quote from a recent writer in the *New York Medical Journal*, "The true specialist can never afford to stop working scientifically. The continued wave of progress in medicine must be closely

followed by him, lest he remain behind. In his practice the true specialist should be before all, a reliable diagnostician. Acquaintance with the commoner diseases of any organ may safely be expected of any well-trained and fairly experienced general physician. But we have a right to demand from the specialist thorough and easy familiarity with rare and exotic affections also; in other words, in his role of consultant, he should be an expert. Likewise he should be fully at home in all therapeutic methods pertaining to his specialty."

"Whereas to the mediocre specialist his specialty is nothing more than a milch cow. Such a man probably enters medical college with a firm determination of eventually 'making a specialty' of a certain class of diseases. While in college he considers everything which is not directly related to his prospective fields as irrelevant, gets through his medical course easily, about well enough to barely pass his examinations without being plucked. His sheepskin still damp from the signatures of the faculty members, he at once goes abroad for special studies, to Paris, London, Vienna. These studies are largely devoted to a minute investigation of the most famous cafes, restaurants, theatres, and other places of amusement; a few special courses by privat-docents or assistants, given in a poorly understood foreign language, are, however, usually taken along by the way, as it were. Six or twelve months later he arrives home, where his friends have already been prepared by numerous letters of his wonderful attainments abroad, armed with instruments of the latest pattern, declaiming about the very most recent methods of treatment of which he is now the only possessor, and superciliously sneering at old-fogeyish Dr. X, whose competitor he starts out to become."

The nature of the relationship of the specialist to the general practitioner must be considered from opposite sides. The specialist must remember that he is dependent for his practice upon the general practitioner, and that his advice is sought for the purpose of a skilled diagnosis in determining the line of treatment, which often may be carried out fully by the family doctor. He is to be the ally, not the competitor, ever ready to support, and never willing to supplant. It is up to him, in association with the pathologist, the physiologist and the clinician, to do the bulk of the real work in the science and art of medicine.

On his side the general practitioner should make free use of the specialist. Is he to refer all cases in Oto-Laryngology to the specialist? No. But it is wrong for him to fail to do so.

when he cannot fairly claim that he possesses the requisite knowledge of the conditions before him, which will enable him to serve the best interests of his patient. His conscience should tell him whether he has arrived at the point where his patient should have the benefit of a knowledge beyond his own. If this point is reached, failure to employ this extra knowledge is nothing short of criminal. If he is absolutely steadfast in calling to his aid every possible means of securing the best interests of his patient, he will surely and steadily build up for himself a reputation for reliability and carefulness which will establish his high standing in the community, and give him the priceless possession of a conscience void of offence toward all men.

To do the opposite is to descend to the commercial basis of the public, the results of which are seen in the deplorable editorial attitude of many of our leading newspapers towards all things medical, in the scepticism of the legislature to the altruistic intentions of the profession as a body, and in the too widespread opinion among the general public, that the physician is not sincere in the promotion of measures which might prejudicially affect his pocket, because it would not be "business."

As Osler puts it, "Faith is the great lever of life; without it man can do nothing; with it, even with a fragment, as a grain of mustard seed, all things are possible to him. Faith in us, faith in our drugs and methods, is the great stock-in-trade of the profession." To wrest from Nature the secrets which have perplexed philosophers in all ages, to track to their sources the causes of disease, to co-relate the vast stores of knowledge, that they may quickly be available for the prevention and cure of disease, these are our ambitions.

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**THE DIAGNOSIS OF CHRONIC INTESTINAL STASIS \***

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BY WM. GOLDIE, M.B.

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The subject under discussion was arbitrarily stated by Lane and some of his supporters to be an Entity, and that the symptoms arose from the mechanical obstruction and the toxin absorbed from the colon. But as extreme claims ascribed to this cause an increasing number of varying symptoms, including types of disease of hitherto unknown origin, it became necessary to increase from toxin to toxins, from absorption to infections and sub-infections, and to increase the points of entry to include almost any portion of the intestinal tract, and also to take into consideration the defective action of the mucous membrane, the liver, the immune substances and in fact to rearrange the whole aspect of the question until the intestinal tract as viewed by Adami is an external surface subject to as many injuries, poisonings and infections as may affect the skin or the upper air passages.

If this conception holds true we should expect to have a great number of symptom-complexes according to the nature of the injury, the toxin or the infection, with departure from these types according to the acuteness or chronicity of the condition and a combination of the causes even if we left out of consideration the defects in protection.

No one doubts the facts of poisoning from the intestinal tract. Routine treatment of all ailments with but few exceptions is based upon the benefit to be obtained by cleaning out the intestinal tract and establishing a normal or near normal functioning.

The term "Chronic Dyspeptic" brings to the mind a vague, even varying, but certain picture. All have suffered the depression, the headache or fullness in the head, the dizziness, the distaste for food, and the disturbed peripheral circulation brought on by failure of regular defaecation, and experienced the almost instantaneous relief and sense of well-being when a free movement was obtained.

All this we may admit and yet not accept stasis as the sole cause of all those symptoms and diseases enumerated by Lane.

The possibility of many causes and combinations of causes and the frequency of reflex symptoms in all abdominal conditions has made it impossible for us to recognize, as yet, any definite set of symptoms which could arise from some one cause.

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\* Read before the Academy of Medicine Toronto, April 6, 1915.

In reviewing several hundred histories of chronic intestinal stasis, organic or habitual, I have been unable to select any list of symptoms with a common cause, but I find a great number of unrelated symptoms, symptoms which were definitely or presumably due to other causes disappearing, or moderating with the re-establishment of regular and satisfactory defæcation. In various diseases of well known origin many will be able to cite marvellous cures ascribed to regulation of the gastro-intestinal functions.

It remains then to call attention to certain points of the general question, the foremost of these is occurrence of constipation.

Lane uses the term stasis as equivalent to delay of the bowel contents at any point, and claims that there are two main forms, obstructive and reflex, the latter due to colonic absorption.

Stasis must not be used as synonymous with constipation. Bowel evacuations may occur once a day or every two, three, or four or five days without any sign or symptom of ill-health, so long as they are regular, satisfactory, and not brought on by drugs. On the other hand, the evacuations may occur once or twice, or thrice a day, and yet there be great delay.

In one case a man aged forty had for ten years two large soft evacuations a day, yet frequently there were remnants in the fæces of food consumed three, four or five days previously. At the time he was evidently over-nourished, but later there developed cirrhosis of the liver and general arterio-sclerosis.

Several like cases have been noted, and can be duplicated by many practitioners.

The main features of the evacuation in stasis are that they are irregular, and frequently unsatisfactory, usually brought about by laxatives and rarely influenced by lubrication and pultaceous debris.

The toxic symptoms vary from the usual ones, due to failure of regular defæcation, to a continued ill-health, with or without loss of weight. In a broad way a permanent organic obstruction is accompanied by loss of weight, malnutrition, skin changes in color, pigmentation and texture, and much abdominal discomfort.

But these changes do not necessarily mean organic obstruction as instanced in the case of a woman of forty-six, who suddenly began to have trouble in regulating defæcation, she lost weight, her skin became harsh, dirty in appearance, markedly pigmented, with an offensive odor, with much abdominal distress. After five months of misery she consented to an attempt

to remove a carcinoma of the stomach, which had evident effect on the stomach secretion or motility. This was successfully carried out, half the stomach was removed, and her abdominal discomforts disappeared, she rapidly gained in weight, and fourteen months later she had the skin and color of one in perfect health without any pigmentation.

The changes in blood pressure vary greatly. In the depressed sallow individual it has been my experience that the blood pressure is lower than it should be for his age, but occasionally symptoms of high pressure develop for short periods with eventually a more constant high level.

High blood pressure is most often found where the patient is over-nourished, with much delay in the intestinal contents, though having several evacuations a day.

But on the whole no definite conclusion can be drawn, except that the character of toxin or virus is not single, nor necessarily constant.

The abdominal distress, discomfort or pain are the symptoms that cause the patient to seek advice and relief. Usually these are directly ascribed to the stomach, and most frequently are the group known as the hyperchlorhydria symptom complex, with the goneness and sinking before meals, the distaste even to nausea with the first attempt to take food, the sensation of enough after a few mouthfuls, the gaseous eructations, and then the relative comfort for a varying time.

This symptom group in cases of organic stasis is most marked in ileo-stasis, but it has been my experience that patients suffering from this symptom complex from other causes develop a temporary or functional ileo-stasis.

Other abdominal complaints cannot be classified in types, but usually are accompanied by reflex symptoms which indicate the point of irritation, and occur at a regular time in the functioning of gastro-intestinal tract, that it is often possible to state the exact point of stasis.

Many of the symptoms said to be the direct result of chronic intestinal stasis, such as degeneration of the heart muscle, Bright's disease, chronic pancreatitis, cholecystitis, acute and chronic diseases of the liver, degenerative disease of the eye, etc., bear within themselves all the earmarks of chronic infections or repeated infections. Such admitted infections as pyorrhea alveolaris, tuberculosis, rheumatoid arthritis, ulcerative endocarditis, etc., are claimed to develop only in cases of stasis, and to result in cure on relief of stasis.



Such extreme claims tend to discredit the contentions of Lane, but should not lead us to cast aside the whole subject, for Lane has focussed attention on a neglected field, and the discussion has led to fresh conceptions of the part that toxæmias and infections from the intestinal tract may play in the production of disease. The recent advances in blood culture work show how common bacteræmia is, and it may be that some of these infections have the point of entry in the intestinal tract.

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## THE MEDICAL TREATMENT OF INTESTINAL STASIS \*

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BY DR. JAMES THIRD, KINGSTON, ONT.

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In the absence of a definite pathology, it is impossible to lay down a definite line of treatment. Still every physician who undertakes the care of a patient, consciously or unconsciously associates with his diagnosis, some idea of the underlying pathological condition.

This must be my apology for submitting the following questions:

(1) Is it not probable that one function of the ileocæcal valve is the prevention of too rapid emptying of the ileum? In other words, is the functional relationship of this valve to the ileum similar to that of the pylorus to the stomach?

(2) Is the ileal stasis in some cases due to the efforts of the ileum to complete digestion?

(3) Are we forced to conclude that because the bismuth is delayed at this point, therefore, the normal contents are equally delayed?

(4) Are we justified, without clinical confirmation, in pinning our faith to machine-made diagnoses?

With these preliminaries, let us now consider the main question—How best can we maintain our bodies in a state of physiological cleanliness?

The belief has been steadily gaining ground, that certain symptoms and physical signs are the result, directly or indirectly, of an intestinal toxæmia. There is at present no scientific basis for the theory, beyond the fact that the majority of patients complaining of these symptoms are greatly benefited by the judicious administration of laxatives.

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Bacteriological examinations of the *faeces* thus far have been somewhat barren of results. They seldom throw light on the all-important subject of *toxæmia*.

Adami has made the very interesting discovery, that cultures of bacteria can constantly be obtained from the lymph nodes of the intestinal tract. On this observation, he bases his theory of subinfection. We must remember, however, that wandering bacteria can be found in many healthy tissues of the body.

Even if we admit the possibility of an intestinal *toxæmia*, much careful investigation still remains to be done. We must determine, for example, whether the toxins producing the symptoms are the result of unusual chemical or bacterial action, or whether the fault lies in a breaking down of the processes in the bowel and surrounding lymph nodes, which normally prevent the invasion of the system by toxins.

The prophylactic treatment of intestinal stasis begins with the cradle. The most important factor in that treatment is the formation of habit. It will not do simply to say to the mother that the child must be taken to the toilet every day. It is of the utmost importance that the child should endeavor to move his bowels, at exactly the same time of the day, to the minute, and he should remain on the chair or closet until evacuation is effected. For a time, it may be necessary to assist with either a soap or glycerine suppository. This habit acquired in youth, like all other good habits, will be of the greatest value in after years.

The state of the general health must next claim our attention. If the patient is below weight, every effort should be made to bring him up to the normal. If the nervous system has been overtaxed, it should be supported; the intestinal canal suffers early, since both secretion and peristalsis are affected.

#### DIET.

Food is no longer taken, at least by the majority of people, in the form provided by nature. We have probably carried the refining process too far. There is insufficient residue to excite the necessary peristalsis.

About the only foods of the present generation leaving much residue, are the vegetables and fruits. Of these city dwellers consume far too little. Little wonder that one out of every three of them suffer from obstinate constipation.

The taking of insufficient liquids is another cause of constipation. Few people who take from two to two and one-half quarts of liquid daily, suffer from constipation.

The ill-effects of sedentary occupation are well known. The abdominal muscles weaken. To prevent this, exercise is necessary. There is no better exercise than the daily brisk walk. When active exercise cannot be carried out from age, obesity, etc., massage should be substituted. The only patients I know of who will carry out massage for any length of time are the neurasthenics. Cannon ball massage is probably the best, but the novelty of even this soon wears off.

It is generally recognized now, that the prime cause of visceral displacement is lack of support from the abdominal muscles. The wearing, therefore, of a carefully adjusted abdominal support, may be of the greatest advantage under two conditions.

(1) In very lax atrophic abdominal walls, it supplies the necessary support and should be worn constantly, i.e., during the day.

(2) In weakening of the abdominal walls, when exercise and massage fail, it prevents displacements with all their mischievous consequences. In the latter condition, the support should be worn only at intervals.

In order to derive the greatest benefit from these supports, care should be exercised in taking the measurements. If they are too wide, they press unduly on the ilia, causing great discomfort, besides defeating the end for which they are worn.

We underestimate at the present time the power of the mind, even over so material a function as intestinal evacuation. We seem to have forgotten the peristaltic effect of great emotion. Probably all of us have known active purgation to result from the administration two *pillulæ micarum panis*.

The power of the mind over the body has limits but, believe me, those limits have never been ascertained.

A mixed diet, not too carefully selected, abundance of liquids, the formation of appropriate habits and the proper attitude of mind, where anxiety and worry are eliminated, will prevent or cure at least 75 per cent. of our cases of chronic constipation.

What of the remaining 25 per cent.? Administer laxatives in the smallest quantity that will produce the desired effect. There is a wide range to choose from.

Up to fifty years of age, I am in the habit of prescribing a tabloid of cascara to be taken each night, alternating at intervals with a pill of aloin, strychnia and belladonna. The agencies already referred to must not be neglected.



After fifty, when the katobolic processes predominate, the scavengers need a little more urging. I prescribe now the salines, especially a combination of Sod. Sulph., Mag. Sulph. and Sod. Chlor., to be taken well diluted, on rising.

In later years, when the arteries show signs of hardening, I add to this about once in two or three weeks, two grains of calomel. A combination such as I have suggested, increases osmosis, drawing water from the mucosa into the intestinal tract. Friction in the large bowel is thereby overcome. If well diluted, the salines in ordinary doses are not more irritating to the intestinal mucosa than the residue of certain articles of food.

Enemata may be useful but there is some ground for the popular belief that they weaken the bowel. When other means fail, they should be given a trial.

Another drug, paraffin oil, the latest addition to our already overloaded pharmacopœia, deserves a passing notice. We are told that it is absolutely non-irritating. What ground have we for believing this, beyond the bald statement of a few men as fallible as ourselves?

Again, we are told its effects on the large intestine are purely mechanical; it acts as a lubricant. If this be so, it simply relieves the colon of the necessity of providing mucus. If we remove a part of the load of an overburdened tissue, we strengthen it, if we remove the whole load, we weaken it; the atrophy of disuse follows. The application will be evident.

Again, it is said that no part of the oil is absorbed. I am not so sure of this. Certain experimental work which I have been privileged to carry on during the past two years on arthritic joints, convinces me that paraffin oil is absorbed, at least in joints. If absorbed in joints, why not in the intestinal tract? In a small percentage of cases, Lane's operation may be our only hope, but it is a formidable operation, and should not be undertaken lightly.

I cannot support either the fulsome praise on the one hand or the bitter condemnation on the other, of the surgical treatment of intestinal stasis. Rather than hint that a surgeon of undoubted skill is the victim of an obsession, we should ask ourselves, How is the man facing? If facing in the right direction, we can afford to temper our criticism and wait. Close observation of the operated cases must be maintained for a prolonged period, before the value of the procedure can be properly estimated. Many of the patients operated upon are nervous wrecks and we are only too familiar with the imme-

diate beneficial effects of even trifling operations upon such patients.

What we most need in the treatment of stasis, at the present moment, is not a groping after new remedies, but a better understanding of the methods of using those we have. Above all, the public should be trained to use the prophylactic measures already referred to.

My final point is that if we physicians paid more attention to the little things that make or mar life, in a word if we performed our whole duty to the community, the abdominal surgeons would not wax fat on our failures.

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### CHRONIC INTESTINAL STASIS\*

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BY GEO. A. BINGHAM, M.B.,

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Reconstructive abdominal surgery is a quite modern development and is not to be undertaken lightly by the amateur surgeon. Indeed intestinal stasis does not become a surgical condition until the radiologist and the physician have made a most complete series of examinations and until the effect of medical treatment has been tried. Then the nature of the surgical treatment will depend upon (1) our knowledge of the cause of the stasis, and (2) the degree of stasis present in the case under observation. Now as to the *cause* we know that probably eighty per cent. of our severe cases are due to certain bands or membranes; other causes may be an inflamed appendix or gall-bladder, a movable cæcum or kidney, or general visceroptosis. These bands or membranes, Lane believes, are the result of stasis. But the fact that one frequently finds them present in children and in adults who are not suffering, and have never suffered, from stasis leads one to the conclusion that they are developmental or congenital. They may be present and well-developed without causing even constipation. As Mr. Gray has pointed out, it is the *manner* in which these bands are attached to the bowel or mesentery that causes the stasis. He says, "If the membrane is short and causes angulation of the bowel, sooner or later stasis proximal to the angulation will occur. It is a matter of failure of compensation. So

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long as the tone of the bowel is good, so long may the patient be free from constipation." Professor Keith, I think, has also shown that so long as the muscular coats of the intestines are acting normally stasis does not occur, notwithstanding the presence of these developmental bands.

If we realize, then, that there are several factors which contribute to intestinal stasis, we must agree that no routine surgical procedure can be prescribed, but that each case must be treated so as to meet the conditions found. What shall we do, for example, in those cases where the abdomen is opened for some reason other than stasis and yet where bands or membranes are present? Unless the bands are quite narrow and already show signs of beginning angulation of the intestine, I believe we should leave them alone. Such cases should be the physician's care and, with due attention to the rules of health, stasis may be forestalled. But when stasis is actually present and the physician has failed to cure and has turned the case over to us, our incision should be a free median one, so that we can examine thoroughly every point of the intestinal tract. We should remember that a kink may not be readily apparent with the patient on the operating table, though it was easily seen through the fluoroscope when he was standing. Careful examination will disclose the band or membrane, and on the proximal side the bowel will be dilated and probably hypertrophied. If the kink be due to an inflamed adherent appendix or gall-bladder or to a loose kidney, the treatment is obvious; remove the appendix and separate and drain the gall-bladder and fix the kidney. If the cause is found to be an ileo-pelvic band, and if the case be a mild one, and especially if the band be narrow, all that is necessary is to cut the band and see that no raw surface is left. But further examination is necessary, for it is not uncommon to find a duodeno-jejunal kink secondary to ileal stasis. Such a condition may also be corrected by cutting the band or by a posterior gastro-enterostomy; but if the stasis be advanced and severe, nothing short of ileo-colostomy will suffice.

If the kinking be found at the hepatic or splenic flexure, or both, it would be useless to release the limiting membrane at the hepatic flexure alone. That would only add the weight of the transverse colon to drag on the splenic flexure and thus to increase the deformity. So that if one limiting band or membrane be released any others distal to it must also be dealt with.



Should the splenic or hepatic flexure kinking be severe and accompanied by ptosis of the transverse and perhaps ascending colon; or should the limiting membrane be wide so that its removal would mean extensive raw surfaces, then ileo-colostomy with or without colectomy is indicated.

I have not seen any cases of intestinal stasis due to a too freely movable cæcum unable to empty itself and so becoming dilated and hypertrophied. Such cases have been dealt with by shortening its mesentery, and in advanced cases by ileo-colostomy.

In cases of intestinal stasis due to bands or membranes, the great problem to solve is when to do the lesser operation of releasing the limiting band and when to do an ileo-colostomy with or without a colectomy. Speaking generally, one may say that the lesser operation is indicated in the earlier and less severe cases and especially where the band is narrow. The more severe operation is called for in the advanced cases with ptosis of the colon, and especially where there is a broad restraining membrane.

I think that time has shown that this question of short-circuiting is more than a mere "obsession" with Sir Arbuthnot Lane, in spite of the opinion of a distinguished pathologist. If we think he has gone too far in his advocacy of the operation, at least his enthusiasm has served to rivet our attention upon a hitherto neglected abdominal condition of the first importance, and for that we owe him a debt of gratitude.

I suppose there will always be cases of chronic intestinal stasis and these cases will always be curable by Lane's method. Yet, as we continue to realize more and more that this condition is largely preventable and is primarily a medical rather than a surgical one, we shall see less and still less of cases calling for radical surgical measures. As Bainbridge, of New York, well says: "With a more intelligent understanding of the importance of exercise, of proper hygienic regime, of position and of adequate support of abdominal organs, chronic intestinal stasis will be forestalled."

## THE IRONIES OF LIFE

BY PRICE BROWN.

Maxwell sat in a little upper room of the hospital, looking out of the window. It was the first day that the surgeon had granted him the coveted privilege. The time was limited to two hours. In the midst of a busy life, whose requirements demanded acute and sustained vision, the sight of one eye had been lost, and to retain the use of the other the afflicted organ had to be removed. A week had elapsed since the operation, and to relieve the mind of his patient of useless worry the surgeon sanctioned the outlook.

It was a psychological moment to Maxwell. The closing of a past chapter, the opening of a new one. Old aspirations thwarted, the business of a lifetime brought suddenly to an end; and at the meridian, when all seemed secure with clear onward sailing, he knew that the end had been reached; and out of the chaos something new must be evolved.

Even the outlook upon the busy streets was a new vision. Blindfolded he had entered. Now with his one eye he could see. Up and down from the far distance came the unending roar of the city. Men and women thronged the sidewalks returning to shops and offices to complete the work of the day; wagons full of goods en route for customers; autocars to and from the railway stations; cabbies waiting for custom, all met his eye—the ordinary business of life seen in any city.

But what was this coming up the street toward the park in the bright sunlight? Men and women, no matter what their calling or how attired, stepped smilingly aside to let this little procession pass—a vision of the innocence of childhood. It was a long row of little ones in spotless white, from their pretty shoes to their gay little hats, lilies of the valley, bouquets, ribbons, long streamers and banners; all led by their Queen of May, gorgeously attired in sheen of silver and lappets of gold. Daintily they stepped along. The fairy queen, inspired by the delight and dignity of her office, smiled graciously to the right and left as she composedly tripped on her way. When the procession of little maidens approached the entrance of the park, all traffic loyally ceased. With flying banners they crossed the road and disappeared within the gates to meet other Queens of

the May and their winsome followers, jointly to celebrate their annual feast.

Suddenly Maxwell's eye was withdrawn. There was commotion and loud barking across the street. Without cause a big mastiff had snapped the leg of a little terrier. With a yelp of pain the little dog leaped aside, but only for a moment. Just as the cowardly beast turned around to follow his ignoble master the terrier sprang at his throat, sank his sharp little teeth deep in his flesh, and with the strength of his grip drew his whole body out of reach of the mastiff's paws. To growl and to shake, both seemed useless; and as the two dogs disappeared round the corner Maxwell noticed that the little one was still hanging on.

Wiping his right eye—he hadn't got his new left one in yet—he wondered what would be next. Two things caught him almost at once. A greengrocer on the opposite corner, taking advantage of the afternoon shade, was temptingly arranging a fine assortment of fruit and vegetables on outside trestlework below his window sill. Evidently proud of his big trays of luscious strawberries, fresh from the South, he placed them with particular care. Finally he stepped on one side and then the other to survey them before re-entering his shop.

Just as he went in, the lower sash of a window on the third story was shoved up, and an industrious housewife, occupying the apartment, successively shook a large rug and three mats out in the open. The air was still. So, gently and placidly the dust and bacteria descended in myriads, to find a fruitful habitat in the housewife's paradise of berries.

Surely these incidents were enough for one afternoon. He looked at his watch. Only an hour had passed away. Following the instincts of his life, he must fulfil his engagements, even in sightseeing. But he had not long to wait.

A few doors to the right of the grocer's another upper window was soon raised to its full height, and a buxom maiden, neatly attired in semi-decollete, deliberately placed a cushion of the same hue as her dress upon the sill, rested her arms upon it, and putting her head outside, comfortably arranged herself for an afternoon's observation.

By-and-by, still further to the right and on the floor above, through another open window, a big white dog made his appearance. Very deliberately, foot by foot, he stepped out upon the sill. It seemed to be an artificial extension sufficiently wide for him to stand on outside the window. Here he comfortably seated himself, and looking first in one direction and then the



other, from his august height, sagely scanned the passing multitude.

Then Maxwell's eye wandered round the corner to the left. On the farther side of the street stood an ancient line of brown stone fronts, still preserved with neat pavements and many steps. Upon the top one a little cripple was playing. Several times he noted her flaxen hair, pink cheeks and blue frock. Now a covered tourist car, with long seats on either side, driven by a short, stout man stopped opposite the house. When he alighted Maxwell saw that he had only one leg; but that, instead of a crutch, he grasped a heavy bludgeon-like staff in his left hand and with its support swung himself up the long flight of steps with astonishing facility. On the top one the little girl grasped him by the hand. The door opened and both entered. Maxwell wondered what the outcome would be. The result was one never to be forgotten. To make his observation more sure he adjusted his one eye to a field glass. By-and-by a matronly lady, with white cap, appeared. She had a plump, kindly face and strong body; but he noticed as she stepped out to give directions that she limped a little. She was followed by a small but eager throng. First came two little lads, each with a short leg, pale face and one crutch. Next a girl with two crutches and a boy with only one arm. Then a girl of seventeen, with twisted back and drooping shoulder; and another one with club feet. Two lads shambled out with feet turned directly outwards, as though from dislocated hips; and after these a couple of lame old men, each carrying a little cripple in his arms. Last of all the chauffeur and the little girl.

Bright sunlight fell upon their faces, and Maxwell noticed the happy smiles with which they greeted the coming ride. Yes, they were going out to the park for a two hours' airing, up the long driveways, down the river's bank, by the still waters of the little lake, beneath the wide branches of overhanging trees, beside the long beds, whose flowers were coming into bloom.

To look at their faces he would never think that they were cripples. They might be invalids just reaching convalescence, or tired ones rejoicing over a much-needed rest; but to look upon them as the halt and maimed who, after severe and prolonged suffering, must face a physically hopeless future, could scarcely be possible.

They were a brave lot, that little band of fellow mortals. Though dependent upon the bounty of the generous, they were independent folk, every one of them. Each one insisted upon

getting down that long line of steps unaided. Only the babes had to be carried. Then they clambered up the steps and into the seats of the motor car. Even the lad with two crutches would not deign to be helped. The one-legged man climbed into his seat as chauffeur, with the little yellow-haired maid at his side. With waves of the hands to the matron, and shouts and jests and laughter, the car drove away, following the wake of the May Queen and the little white procession to the park.

Maxwell caught himself wishing that his two hours could have been prolonged to witness their return. Farther up the street, however, was another scene which he yet had time to observe.

A big storage car had backed up to a less pretentious house in the same block. Already a shaggy, black-whiskered foreigner had carried out a pile of greyish rugs. Now his stout, towsey wife came to his assistance. With a child of two years tugging at her dress she carried a baby on one arm and a bundle on the other. Half a dozen other children tumbled after her, each carrying something—having the time of their lives. This bright sunshiny day they were to ride in a motor car on top of piled-up household goods. What could be more joyous? What did the future matter to them? But on the man's face Maxwell noted an angry scowl, reflected in double degree on that of his wife. Over and over again they went into the house for their goods. But there was a strange sameness in it all. Piles of dun-grey material, whether mats or carpets, or bedclothes, or mattresses, once no doubt of many colors, were all alike now. Why should they not be? with Pan—their household god—alike for the home as the world! Besides this great grey multitude of things there were a few chairs, a couple of tables, a single bedstead of bright yellow, a cooking stove and a few utensils.

The goods were loaded almost pellmell. It mattered little how they were stowed, for time was money. Then the half-dozen grimy children scrambled to position here and there on top of the pile, while the mother, with her babe, took a place beside the driver, and her husband, lighting his pipe, with an imprecation seated himself on the back of the wagon, with feet dangling over the end. Was it downwards or upwards this Ishmaelite from the great East was trending?

A new sound struck Maxwell's ear. The young lady across the street uttered a scream. In some unaccountable way, the window sash above her shoulders had lost its hold and had dropped upon her neck. Was she, like Marie Antoinette, to

be guillotined? The white dog at the adjoining window barked vociferously, and in his excitement almost lost his balance. Vainly the girl struggled to release herself. The sash held her so tightly that she could not use her hands; and it was not until she screamed a second time that help came.

Maxwell's time was up. He had not had a moment to think of himself. Now, as he turned his heart made a great leap. Noiseless footsteps had entered his room. Noiselessly they had departed. There before him was a magnificent Marguerite, covered with a thousand flowers, sent by a loved one a thousand miles away. Verily, though life has its sorrows, is it not also full of joy?

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#### **A French Woman's Opinion of the Germans.**

One of the most famous women writers in France, Mme. Juliette Adam, in her reply to an invitation to attend the Women's Peace Gathering at the Hague, speaks thus of the Germans:—

“ They lie, they loot, they burn, they kill women and children, they take hostages, they assassinate wounded, stretcher-bearers and doctors, they set fire to ambulances, they violate women, young girls, nuns. They destroy, for the sake of destroying, objects which more barbarous centuries have respected. It would be treachery to those I have lost to seek anything but what is, and ought to be, if the God of right and justice, the enemy of the demon, of brute force, of mad pride, is the true God.”



## Reports of Societies

### ACADEMY MEETING

The regular monthly meeting of the Academy of Medicine, Toronto, was held in the Mining Building of the University on Tuesday evening, April 6th. The subject of "Chronic Intestinal Stasis" was discussed by:

(a) Dr. Andrew Hunter, Professor of Pathological Chemistry, University of Toronto, who gave a paper on the "Pathological Chemistry of Chronic Intestinal Stasis." In the intestinal canal there are two classes of chemical substances:

|             |                   |
|-------------|-------------------|
| the phenols | the amines        |
| cresol      | tyramine          |
| indole      | indole-ethylamine |
| skatole     | histamine.        |

The chemical constitution and physiological action of these substances was outlined.

(b) Dr. F. W. Rolph on the "Clinical Value of X-Ray in the Investigation of Intestinal Stasis."

In the normal person the bismuth shadows should leave stomach and duodenum and be in colon in six to seven hours. If not, it is usually found in terminal portion of ileum. The most frequent cause of this stasis is Lane's kink. This condition should not be diagnosed in absence of dilatation of the ileum behind the obstruction. There is, according to Jordan, tenderness over the point of constriction. Obstruction from appendiceal adhesion is also a frequent condition and gives similar picture. An inflamed appendix will cause spasm of ileo-cæcal valve with stasis following. Insufficiency of the valve has been stated to be a cause through return of cæcal contents. Perhaps the commonest condition is a tired ileum-atony. At first there may be active peristalsis but this slows down until almost absent. This may be secondary to atony and stasis in ascending colon. It is seen in cardio-vascular disease. There are few symptoms of absorption with cæcal stasis, as there the contents are well dried.

(c) Dr. John Malloch, on "Chronic Intestinal Stasis in its Embryological and Anatomical Relations."

The development of the large bowel shows little in the way of causation of intestinal stasis. The ileo-cæcal sphincter has a motion mechanism in all vertebrates above the fishes. In

some this area is large. In typical mammals there are five structures in this area:—(1) Ileo-colic sphincter, (2) Cæco-colic sphincter, (3) cæcum, (4) cæcal colon, (5) appendix. By development of the small intestine the colon is forced up under the liver and from here the cæcum grows downward. Motor nerve supply of small intestine is from the brain through the vagus, that of large intestine is from plexus of Auerbach and Meissner which arise from posterior end of the body, and the supply of the small intestine would seem to be the more active. There is nodal tissue about the cæcum whence motor stimuli arise. On inspection of the large bowel its vascularity is striking as compared with the small intestine. The most vascular part of large intestine is that part pushed to the right, and this would seem to be the most active part, and here stasis may occur through interference with this supply. The contents having to be lifted against gravity—this also tends to influence the production of stasis. Dr. Malloch pointed out the division of the bowel into fixed and movable portions: cæcum, into colon ascending and hepatic flexure; transverse colon, into splenic flexure and descending colon; pelvic colon, into rectum. These alternating fixed and movable portions may be a factor in stasis—they may each have an isolated motor mechanism.

(d) Dr. Wm. Goldie, on “Diagnostic Delimitation of Chronic Intestinal Stasis” (exclusive of X-ray). (See page 284.)

(e) Dr. James Third, Professor of Medicine, Queen’s University, on the “Medical Treatment of Chronic Intestinal Stasis.” (See page 287.)

(f) Dr. George A. Bingham, on the “Surgical Treatment of Chronic Intestinal Stasis.” (See page 291.)

#### DISCUSSION.

Dr. H. J. Hamilton: One class has not been spoken of: the thin child with almost entire absence of peristalsis; very small quantity of food taken; great difficulty to feed child enough to make any stimulus. Lavage is to be used and an endeavor to get something to agree with the irritable stomach. Irrigation of the bowel is useful. There is very little result from drugs, except minute doses of bismuth. These come to us before cases spoken of by Dr. Third. These are not cases of hypertrophic pyloric stenosis.

Dr. J. M. Cotton spoke of influence of erect position of body in bipeds as a cause of stasis. It is absurd to continue

dosing with medicine after a reasonable time for treatment, most reasonable to remove the obstruction if such be found.

Dr. Graham Chambers spoke on the influence of the nervous system. Causes of Intestinal Stasis: (1) Intestinal atony, (2) cæcal obstruction, and (3) spasm of valve. The second is not likely, and the speaker thinks the primary pain of appendicitis is a proof of the third. If a man has gastric stasis he is likely to have intestinal stasis also. He has seen many cases with stasis present only when patients are run down. Nervous influence very great in many cases. The majority of cases of intestinal stasis we have to deal with are partly organic and largely atonic. Continuous hyperperistalsis of the stomach is always associated with hyperperistalsis of small intestine.

Dr. F. N. G. Starr spoke of a case of a girl defæcating only once in three weeks. She reported that after treatment she defæcated every Sunday. He spoke of a very successful operative case in a young woman. Speaking of paraffin, he says recent experiments on dogs, where paraffin is injected into peritoneal sac, adhesions were generally found; but does not think it is absorbed from the intestinal mucosa.

Dr. D. McGillivray said that it is hard to get patients to carry out dietetic and hygienic treatment for any length of time.

Dr. W. J. Wilson wished to emphasize that, as Dr. Third pointed out, our food is too refined.

Dr. Doolittle said Stephenson, the artist, had figured out one cause—wrong position in defæcation, need for more acute flexion of thighs. The ordinary closet seat is too high—a foot-stool should be used, this especially true for children. The tender appendix, not necessarily inflamed, may be a factor.

Dr. Edmund E. King spoke of the danger of putting too much importance upon the X-ray diagnosis. The importance of dietary waste should be emphasized—the use of food with much residue.

The President pointed out the danger of drawing conclusions from bismuth meal. This is one never ordinarily eaten. We may use charcoal and note time of its appearing in the stool. There is a danger of emphasizing the number of stools instead of efficiency or total quantity of evacuated matter. It is important to remember the mechanical obstructive influence of a large mass of fæces requiring some days and a variety of aperients to remove. We must remember, too, the influence of different quality of various waters in different places.

Dr. Third, in reply, said the discussion shows that: (1) The question of the operation is finally brought home to the sur-



geon himself; (2) there is no difficulty in training children even at five months to have regular defæcation; (3) we should not pin our faith upon machine-made diagnosis; (4) bismuth meal gives a great deal of information, but is not to be absolutely depended upon.

Earlier in the evening, before the scientific programme was commenced, it was moved by Dr. George A. Bingham, seconded by Dr. R. A. Reeve, and resolved:

That the members of the Academy of Medicine, Toronto, desire to place on record their profound sense of the loss sustained in the death of our late Fellow, Dr. William Britton. As a practitioner his life was assiduously devoted to the welfare of his patients who, rich and poor alike, loved and trusted him. As a brother physician his high ethical standard was an example to us all and the many high and honorable positions to which he was elected by his colleagues amply attested to our confidence in and respect for him. Those of us who were privileged to know him as a friend realize that we have lost something which can never be replaced.

We beg to tender to Mrs. Britton and her daughter our sincerest sympathy in their bereavement.

That a copy of this resolution be sent to Mrs. Britton.

PRESENTATION OF A PORTRAIT OF THE LATE HON. JOHN ROLPH,  
M.R.C.S., ENG., LL.D.

Dr. F. W. Marlow presented a portrait of the late Hon. Dr. Rolph on behalf of Dr. Geikie, reading the following letter from Dr. Geikie, outlining the industry of Dr. Rolph:

Late Hon. John Rolph, M.R.C.S.-Eng., LL.D.

DEAR DR. MARLOW,—I have had in my mind for some time to present, through you, to "The Toronto Academy of Medicine," a good-sized portrait of the late Hon. John Rolph, M.R.C.S., Eng., LL.D., taken when he was Dean of the Medical Faculty of Victoria University, Toronto, and still actively discharging the duties of the position he held till 1870. That year he sent in his resignation. He died in 1870, a few months after he had ceased to discharge his (to him) most congenial duties. His resignation gave me such a shock that I sent in my own as his colleague at once. A year later I suggested the setting agoing of what in a few years became the well-known "Trinity Medical College," and the picture I ask you to present to the Toronto Academy of Medicine hung in the largest classroom of Trinity Medical College till 1903. That year

changes took place which I, as its founder, strongly opposed, and have never regretted doing so, and the great bulk of our students and graduates everywhere thought exactly as I did in this matter.

At this time the picture now presented was given to me, and it has hung ever since in my office. I greatly value it, and never more highly than now, but as the Hon. Dr. Rolph was very largely the founder of truly practical medical education in Ontario, I think the proper place for his portrait to be is "The Academy of Medicine" of Toronto, where he taught and lived so long, and in placing it here I feel sure it will be well and safely kept.

From 1843 till his death he was a most faithful and able teacher. I heard courses of lectures delivered by him on "Descriptive Anatomy," "Physiology," "Principles and Practice of Surgery," "Principles and Practice of Medicine," and on "Clinical Medicine," and I have never heard one lecture he delivered without being much impressed by the fact that whatever his subject might be, the lucidity and the many charms of his speaking, the earnestness, and the extremely practical character of all he said, fully explained why his students were most eager never to miss any of his lectures. This was my own feeling, and I never heard any other expressed by members of his classes. No wonder I valued his portrait, and I feel it at once a pleasure, and a duty, to present it, through you, to "The Toronto Academy of Medicine," and hope that all the members may value and prize it as of a truly great Canadian medical teacher.

Yours faithfully,

Holyrood Villa, March, 1915.

W. B. GEIKIE.

The portrait was accepted on behalf of the Academy by the President. A resolution of thanks to Dr. Geikie was moved by Dr. R. A. Reeve, and seconded by Dr. Brefney O'Reilly, both of the speakers availing themselves of the opportunity of referring to incidents in the life of the Hon. Dr. Rolph.

Resolution proposed by Dr. R. A. Reeve and seconded by Dr. Brefney O'Reilly:

That the hearty thanks of the Academy of Medicine, Toronto, be presented to W. B. Geikie, M.D., L.R.C.P., Lon., F.R.C.S. Ed., D.C.L., LL.D., for his thoughtful gift of the portrait of the Hon. Dr. Rolph, one of the celebrities of this young country, whose career shed such lustre upon our profes-

sion, and whose picture the Academy as custodian will ever treasure as a valuable and historically interesting addition to its gallery.

In moving the resolution Dr. R. A. Reeve said:

Hon. Dr. John Rolph, M.A., M.R.C.S. Eng., (1793-1870.)\*

Trained at Cambridge University, where, as Dent tells, "he was recognized as a young man of very remarkable and precocious intellectual powers," John Rolph became at an early age, a member of the Bar of the Inner Temple, London. He was also a student of Sir Astley Cooper's and attended Guy's Hospital, in due course taking the M.R.C.S. England. Called to the Bar of Upper Canada in 1821, he was the fourth Benchers in the Province. He had the unusual if not unique distinction of practising both law and medicine concurrently, and also of qualifying for orders in Divinity; while as a popular politician he ere long became a member of the Executive Council of the Province.

With marked courage he dropped Law in 1832, when he had the reputation of being the most eloquent pleader at the Upper Canada Bar, and devoted himself to Medicine and Politics. He was commissioned a member of the Medical Board of Upper Canada in the same year (1832). Dr. Rolph lived in troublous and stirring times and was a prominent figure on the stage of political and public life at a critical juncture in the history of our country, when men counted for much and were all too few. There were, however, giants in those days and he was one of them. Joined with other Reformers of like mind, whose goal was popular and responsible Government, he was one of the leaders in the fight against autocracy and entrenched privilege in high places. As a result it became expedient and indeed necessary for him to live abroad for a few years; but he was soon rehabilitated upon his return to Canada in 1843. He could not keep out of public life, and was shortly in the Legislature; and from 1851 to 1854 he was a member of the Government. As in the case of some other great men we wot of, there was a fly in the pot of ointment, for it will be recalled as an unfortunate coincidence that Rolph was one of the Cabinet when the University of Toronto was deprived of its Faculty

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\* For various data of interest the writer is indebted to Canniff's "The Medical Profession in Upper Canada." (R. A. R.)



of Medicine; although its desuetude of thirty-five years can hardly be laid at his door.

Dr. Rolph's career teaches us the value of erudition and versatility to one who aspires to a commanding position in any profession and not the least in medicine. He had a subtle brain which could cerebrate easily without disturbing the vegetative functions—a Gladstonian quality to be coveted.

As a public speaker he had a lucid and ornate style with the added charm of a voice of silvery sweetness and sympathetic intonation. It was, however, as a pioneer teacher of medicine and later, and for many years, as the most prominent medical educationist of the country, that Dr. Rolph became justly celebrated. During a series of years before the rebellion he had had a number of private students whom he coached and trained, and two of these, H. H. Wright and J. H. Richardson, followed him to Rochester, where he was living in exile. By a natural evolution Rolph's School of Medicine began to take shape shortly after his return to Toronto in 1843; and assisted by a few others, notably Dr. Joseph Workman, Dr. Rolph's efforts were soon rewarded by the great success of his School, which became a widely known centre of attraction for students during nigh a quarter of a century.\* For a long period it was the Medical Department of Victoria University, the Doctor holding office as Dean until early in 1870, his death occurring in October of the same year. Medicine had other celebrities in his time and after, but in a sense his mantle was buried with him.

It is peculiarly appropriate that the donor of the portrait of such a master should be one who, as Dean of Trinity Medical College, played well his part for many years as a leading teacher of medicine and most successful head of a school prominent amongst the Educational Institutions of this country.

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\*Of the varying personnel of the staff of the school during the course of years, and of the history of the several Colleges and Faculties of Medicine in this Province the present occasion does not permit mention.

## Editorials.

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### ASPHYXIATING GASES

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It is probable that a large number of the French soldiers and many Canadians were killed by the asphyxiating gases used by the Germans near Ypres. In many cases death did not occur until the men had been removed to the hospital. The clinical features are those of acute broncho-pneumonia, and in grave cases there is pulmonary œdema. The gas after being blown from tubes appears in the form of a yellowish brown smoke, which floats slowly along close to the ground and is usually visible from a considerable distance. When it reaches the men it causes smarting of the eyes, violent coughing and choking. It is supposed that the gas is chlorine, which is about two and a half times heavier than air, and is dangerous to life even in low admixtures.

It is hoped that the use of respirators will, to a large extent, eliminate the dangers. It is probable that an ordinary handkerchief dipped in a solution of sodium bicarbonate would suffice. The respirators now being prepared in Toronto are made of absorbent cotton covered with cheese cloth or something of that sort.

We are told by Colonel Maude in *Land and Water* that the method of asphyxiation is one of the oldest forms of offensive ever used in war. In reality there is little cause for alarm, for these ends generally defeat themselves in practice. If the allies cannot advance in face of heavy fumes neither can the enemy do so.

### HEROES ALL

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The *Mail* (English) says: "A bright page in the splendid story of British heroism in the battle of Neuve Chapelle is the conduct of the doctors. As always they distinguished themselves by their fearlessness under fire and their gallantry. Their losses were heavy, for they exposed themselves without thought of danger." The same paper in another issue speaks of the doctors entered with the "territorials." It says: "The individual sacrifice of salary and prospects have been great, notably in specialized units like the R. A. M. C. Doctors with large and growing practices cheerfully accepted their lot, when they were called upon to give up an assured income for a much smaller officer's pay. It is only fair that these sacrifices should be recognized, for a stray visitor to a territorial camp would hear nothing of them."

The same paper also has some good words for the stretcher bearers and orderlies. A member of the A. M. C. in a letter says: "My work is sad. I sit in a little hole all day and listen to the shells whizzing over me. The stretcher bearers bring me the dead and wounded, starting their work after dusk. I am glad to say that these men have earned the praise of our whole battalion, and have been warmly thanked frequently during the short time we have been here."

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### LAKESIDE HOME

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We have to announce with much regret that the Lakeside Home, which is the Summer House or Houses for the Hospital for Sick Children, Toronto, suffered seriously from a fire which destroyed the Main Building, April 21st.



We are glad to be able to state that the Trustees have already commenced to rebuild. The new building will be two stories in height, erected largely on the cottage plan, with an extended front. It is hoped that the buildings will be completed in five months.

Last year 342 children were housed in the home. It fortunately happens that a large number of children can be sent over this summer and placed in the buildings not destroyed, that is, in the Surgical, Heather Club and Isolation Pavilions.

The insurance on the Main Building, which was destroyed, was \$28,000, and on the furniture \$7,000.

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### TREATMENT OF DEFECTIVES

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As our readers well know, a great deal of interest has been taken by both the profession and the public in the many discussions that have taken place in regard to the proper treatment of the feeble-minded in Ontario. There have been, during recent years, many complaints about the detention of feeble-minded persons in our jails. It has long been felt that steps should be taken to keep these unfortunates apart from the ordinary jail inmates.

Dr. Helen MacMurchy in her last report tells us that mental defectives are steadily increasing in Ontario, and that there are now more than 2,500 of these unfortunates at large, and as a rule uncared for. Dr. MacMurchy thinks the Government and the different municipalities should work together to make permanent provision for these people. Training Schools and Industrial Farm Colonies should be established. Such a system in the end would cost less than the present very imperfect system. The Farm

Colonies should be practically self-supporting, as the inmates could do their own work, produce their own food, and make their own clothing, etc. In addition the fees paid by relatives or guardians, government grants, assistance from municipalities and private benevolence would assist materially.

Dr. MacMurchy is not strongly in favor of auxiliary classes because the education of mental defectives in such classes is expensive, costing three times as much as the education of an ordinary child.

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### WAR AND SANITATION

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Dr. John Amyot in an address on "Sanitation During War," delivered before the Canadian Institute, said that in all wars previous to 1870 eight men died from disease to one from wounds. In the South African war the rate was four to one.

During the Russo-Japanese war the record in both armies was vastly different, as the ratio was three or four men dying from wounds to one from disease. The results of the present war will show a smaller proportion of men suffering from the ravages of disease than ever before; that is, the record is likely to be better than the Russo-Japanese war. The three chief foes of the soldier are typhoid, dysentery and Asiatic cholera.

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### ACADEMY OF MEDICINE, TORONTO

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The following have been elected as officers of the Academy of Medicine for the ensuing year: President, Dr. W. H. B. Aikins; Vice-President, Dr. H. A.

Bruce; Secretary, Dr. J. H. Elliott; Treasurer, Dr. W. A. Young; Chairman of the Surgical Section, Dr. J. M. Cotton; Chairman of the Medical Section, Dr. W. B. Thistle; Chairman of the State Medicine Section, Dr. G. Porter; Chairman of the Pædiatric Section, Dr. J. S. Graham; Chairman of the Pathological Section, Dr. J. G. Fitzgerald; Chairman of the Ophthalmological and Oto-Laryngological Section, Dr. C. Campbell.

The above, with the following, form the Council of the Academy: Drs. H. B. Anderson (past President), F. A. Cleland, H. J. Hamilton, E. E. King, J. McConnell, N. A. Powell, Harley Smith, C. L. Starr and D. J. Gibb Wishart.



### NEWS ITEMS

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The seventeenth annual meeting of the American Proctologic Society will be held at San Francisco, June 21st and 22nd, 1915.

Numbers 3 and 4 Base Hospitals in France expect to have accommodation for about 3,000 men. The Canadian University units will have charge of these.

Besides these hospitals, Dr. Carleton Jones (Surgeon-General) is establishing a convalescent home at Shorncliffe and another in Kent for the convalescing Canadian soldiers.

The Military Hospital at Dinard was presented to the French War Office by the Canadian Government. It is in charge of Hon. Phillippe Roy, Canadian Commissioner at Paris.

Among the hospitals in France in charge of Canadian doctors is one installed at the Golf Hotel, LaTouquet, in Northern France, in charge of Dr. Shillington (Lieut.-Colonel), of Ottawa.

There is another Canadian hospital, which is an important one, although we have heard less about it than the two already mentioned. This is the Mount Vernon Hospital, Hampstead, London, which is in charge of Dr. Lorne Drum (Colonel), of Ottawa.

There is also a large group of hospitals at Salisbury Plains in twelve different buildings. The chief of these is at Bulford, in charge of Dr. Murray MacLaren (Colonel), of St. John, N.B. Another of these buildings is at Ablington House.

Mrs. Coleman, wife of Theobald Coleman, died at her home in Hamilton of pneumonia, May 16. She was well known under the pseudo name of "Kit" as one of the best woman writers in Canada. She was the writer of the "Woman's Kingdom" in the *Mail and Empire* for many years. She wrote and spoke of the medical profession quite frequently.

Another hospital that we hear much about is the Cliveden Hospital, which is said by some to be the finest in England.

Sir William Osler, after going through the building, said to Dr. Hodgetts, "You are doing your work magnificently." There were in this hospital in the latter part of April 322 patients. A new building is being erected which will provide accommodation for 600 patients.

About the middle of April the Mobile Laboratory of the First Canadian Contingent arrived in France in charge of Dr. G. G. Nasmith (Lieut.-Colonel). With him on his staff are Dr. Arthur Ellis (Captain), Dr. Rankin, Bacteriologist for Alberta and six laboratory assistants. There is in this outfit a motor lorry carrying a complete laboratory equipment and an automobile for the use of the staff. It is expected that it will work about ten miles back from the firing line.

Mr. Eric N. Armour, of this city, has received the following cable from his brother, Lieut.-Col. Donald Armour, regarding the hospital at Shorncliffe, England:—

"Ask newspapers to convey to the Canadian people my deep appreciation of their magnificent response to appeals on behalf of the Queen's Canadian Hospital. Their unbounded generosity in providing nurses, ambulances, beds, surgical dressings and clothing has greatly enlarged the scope of the hospital and increased its power of succoring larger numbers of our Canadian wounded than before possible. Words are inadequate to express gratitude for their invaluable assistance.—(Signed) Donald Armour, Surgeon-in-Chief."

There were in the first contingent 141 doctors and in the second about 160. It is supposed that there are now in England and France between four and five hundred Canadian doctors. Some of these are working in English hospitals, for instance, Dr. Clutterbuck, of Toronto, is now in charge of No. 13 Base Hospital, Boulogne. Dr. Wallace Scott is in charge of No. 2 Base Hospital in France. It is expected that Dr. Scott will be removed to London, England, to take charge of No. 2 Clearing Station. Dr. Geo. Rennie (Lieut.-Colonel), of Hamilton, has taken over a unit which will probably have charge of this hospital after Dr. Scott goes to England. On Dr. Rennie's staff are: Drs. A. B. Osborne (Lieut.-Colonel), J. E. Davey (Major), all of Hamilton; J. W. E. Wilson (Major), Niagara Falls; George Strathy (Captain), Hervey Jackes, Bruce Robertson and G. S. Strathy (Captain), of Toronto.

The doctors, nurses and men of No. 4 General Hospital (University of Toronto) were invited to a farewell reception by the University authorities in Convocation Hall, May 5th. The Chancellor and President delivered short addresses.

Dr. Herbert Bruce also entertained them at a Garden Party May 12.

The whole unit consisted of 37 active officers, 73 nurses and 233 men. Each nurse holds the rank of lieutenant. The men are divided into cooks, machinists, orderlies, clerks, carpenters and dressers.

The whole party entrained at the Exhibition Grounds at 11.30 a.m., May 15. A large number of city doctors were there to say good-bye. The best wishes of all will be with them during their arduous duties. We are glad to say that there is not, nor never has been, a better equipped hospital than this No. 4.

#### *The Staff.*

Colonel J. A. Roberts, officer commanding.

Lieut.-Colonels W. B. Hendry, A. Primrose, W. McKeown, G. Chambers, A. R. Gordon.

Majors E. S. Ryerson, W. J. Malloch, C. S. McVicar, D. McGillivray, H. C. Parsons, D. Smith, J. A. Amyot.

Captains B. P. Watson, G. E. Wilson, R. E. Gaby, F. E. Watts, J. G. Gallie, H. W. Wookey, N. J. Yellowlees, A. H. Caulfield, G. F. Boyer, R. G. Armour, J. H. McPhedran, S. R. D. Hewitt, G. Royce, W. H. Lowry, R. Pearse, D. A. Graham, N. C. Sharpe, A. Fletcher, C. G. Imrie, H. J. Shields, George Gow, J. G. A. Campbell, J. J. Mackenzie, J. G. Brodie.

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#### WAR ITEMS

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Queen's University Hospital Unit will be known as No. 5 Stationary Hospital. It is expected that the following will go as surgeons: Drs. Anglin, W. T. Connell, Kidd, Ballantyne, Polson and Flatt.

The Western Unit of the A.M.C. left Halifax early in April. This unit is composed of detachments from Winnipeg, Vancouver, Victoria, Edmonton and Calgary. Twenty-five members of the A.M.C. from Halifax sailed by the same steamer.



### Canadian War Hospitals

Among the Canadian hospitals in England one of the best known is the Queen's Canadian Hospital at Shorncliffe, of which Dr. Donald Armour is Surgeon-in-Chief. The buildings were loaned to the Canadians by Sir Arthur and Lady Markham. It is stated that the English people are wonderfully interested in those Canadian heroes who grappled with death in such dauntless fashion, disregarding all the tactics of war as laid down in German text-books. Among many of the pleasant features connected with the treatment of convalescents we find that wealthy people have provided carriages, horses and motor cars in which the convalescents are taken for drives through the country.

### Belgian Medical and Pharmaceutical Relief

Subscriptions not previously acknowledged:—Dr. W. E. Plummer, \$5; Dr. L. G. Pinault, \$5; Dr. L. M. Curren, \$5; Dr. J. A. Guy, \$5; Dr. N. Ayer, \$10; Dr. Duvernet Jack, \$2; Dr. W. D. Rankine, \$25; Dr. E. A. Legace, \$5; Dr. W. M. Deinstadt, \$10; Dr. F. D. Welson, \$1; Dr. J. A. Langis, \$5; Dr. B. D. Dash, \$1; Dr. H. E. Gilmour, \$5; Dr. A. S. Lamb, \$3; Dr. J. A. Cassell, \$10; Dr. J. M. Baxter, \$5; Dr. H. W. Schwartz, \$5; Dr. A. B. Atherton, \$10; Dr. Jas. Bearisto, \$5; Dr. G. C. Vanwart, \$10; Dr. W. J. Weaver, \$5; Dr. S. F. A. Wainwright, \$5; Dr. H. H. McNally, \$10; Dr. D. C. Malcolm, \$5; Dr. G. H. Field, \$5; Dr. T. C. Lapp, \$4; Dr. H. M. Harrison, \$1; Dr. J. R. Irwin, \$5; Dr. J. A. Ivey, \$4; Dr. E. W. Hayden, \$2; Dr. G. C. Kidd, \$2; Mr. C. G. Johns, \$5; Mr. A. J. Gould, \$2; Mr. H. C. Paton, \$2; Mr. W. H. A. Semple, \$2; Dr. R. E. Valin, \$10; Dr. F. P. Quinn, \$5; Dr. E. G. Quesnel, \$2; Dr. R. K. Paterson, \$10; Dr. Elisabeth Embury, \$2; Dr. R. Chevrier, \$10; Saskatoon Pharm. Assn., \$500; Dr. J. F. Argue, \$10; Dr. D. M. Robertson, \$10; Dr. R. Law, \$5; Dr. A. S. McElroy, \$10; Dr. T. H. Leggett, \$10; Dr. F. W. Mohr, \$5; Dr. I. G. Smith, \$5; Dr. W. F. Mayburry, \$10; Dr. C. H. Brown, \$5; Dr. C. E. Preston, \$5; Dr. Carren S. Lyman, \$5; Dr. Evans, \$5; Dr. M. H. Reynolds, \$5; Sir James Grant, \$10; Dr. J. D. Courtenay, \$25; Dr. Hugh Fleming, \$5; Dr. G. S. McCarthy, \$10; Dr. H. B. Moffatt, \$5; Dr. R. W. Powell, \$5; Dr. T. A. Watterson, \$5; Dr. C. Laidlaw, \$5; Dr. J. T. Basken, \$5; Dr. C. T. Ballantyne, \$5; Dr. J. S. Nelson, \$10;

Dr. R. E. Webster, \$25; Dr. R. S. Minnes, \$10; Dr. J. L. Chabot, \$25; Dr. D. T. Smith, \$25; Dr. J. R. O'Brien, \$25; Dr. E. M. Lambert, \$25; Dr. Bourque, \$3; Dr. R. H. Ellis, \$10; Dr. S. M. Nagle, \$5; Dr. R. H. Parent, \$5; Dr. H. L. Simms, \$5; Dr. J. H. Laidlaw, \$2; Dr. G. E. Booth, \$3; Dr. R. E. Coulter, \$10; Ottawa Medical Chirurgical Society, \$50; St. Thomas, per Dr. Lawrence, \$119.

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The kidney and upper portion of the ureter may be easily reached by the lumbar route without dividing any muscle fibres. Beginning just below the twelfth rib two or two and a half inches from the spine, an incision is made downward and more or less outward to or towards the iliac crest, exposing the lumbar aponeurosis. Divide this in the same line, proximal to the origin of the latissimus dorsi. This will expose the border of the erector spinae, which may be drawn inward, the lumbar fascia and the ilio-hypogastric nerve coursing obliquely on the latter. Divide this fascia just above and external to the nerve, i.e., downward and outward, the incision being easily made to split the sheath of the quadratus lumborum. (It is desirable to bare this muscle in nephropexy.) The perirenal fat is now seen beneath, and the reflection of the peritoneum anteriorly. The appendix can be removed or the gall-bladder palpated through an opening in the peritoneum here. Through this exposure the upper ureter can be reached, or a kidney of fairly normal size delivered. It is not to be recommended for the removal of a large kidney. In closing the wound only two fibrous layers are to be sutured—the lumbar fascia (which is the posterior aponeurosis of the transversalis) and the lumbar aponeurosis.—*American Journal of Surgery.*

## Personals

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Dr. Jno. Stewart, of Halifax, spent the first half of April in Toronto.

We understand that four units of hospitals left London for Servia in March and April.

A complete hospital unit, including over 100 doctors, went from Australia to England in April.

Sir Adam Beck was unanimously re-elected President of the London Health Association, April 9th.

Professor Adami, of Montreal, has been appointed Medical Historical Recorder of the Canadian Expeditionary Force.

Dr. N. A. Powell, Toronto, received a cablegram, May 10, announcing that his nephew, Mr. Jos. Adlum, was killed in action.

Dr. P. J. Sinclair, who graduated from Toronto University in 1894, has been appointed Medical Officer of Health in Gananoque.

Dr. A. K. Haywood (Captain), Toronto, who was for a time Assistant Superintendent at the Toronto General Hospital, cabled May 1: "Safe at present."

Dr. Harold White reached Toronto May 7. He started for Ottawa on the 10th, and from there he expected to join the A. M. C. in France within a few days.

Mr. Lorne McGibbon has given his house and hotel at St. Agathe. Mr. W. B. Northrop has given his house containing twenty-one rooms in Belleville.

We have to announce with deep regret that Mrs. Ryerson, wife of Dr. G. Sterling Ryerson (Colonel), was lost in the Lusitania disaster.



Dr. Hastings, M.H.O., Toronto, thinks that alcohol is responsible for 41 per cent. of the insanity in Ontario, and that in many cases alcohol is taken in patent and quack medicines.

Dr. White, of Moose Jaw, Dr. Wheeler (Surgeon-Major), and Dr. Chas. Sutherland, also of that city, and Dr. Jones, of Regina, arrived at Ottawa and reported. These doctors with some others left for France a few days ago.

Dr. Harold B. Boyd (Captain), who went with a unit of the A. M. C. in the First Contingent, was reported wounded in France in the latter part of April. He is a son of Rev. Mr. Boyd of Ridgeway, Ont., and is a graduate of the Western University, London, Ont.

At a meeting of the committee of the Canadian Defence League, held April 14th, a resolution was unanimously carried expressing regret at the loss the League is sustaining by Dr. J. T. Fotheringham (Lieut.-Colonel) going to the front to work with the A. M. C.

A remarkable item of news comes from Leeds, England. At a sanitarium for tuberculosis in that city 90 male patients have been admitted during the last two years. The Superintendent announced in March that 47 of its discharged patients are now serving in the Army.

As before announced, Dr. T. V. Hutchinson, M.O.H. for London, resigned several weeks ago. His resignation was accepted in the latter part of March. He had been the medical health officer of that city for about forty years.

Dr. J. W. S. McCullough, C.O.H., Ontario, has been closely in touch with the work of the commission *re* pollution of boundary waters between Canada and the United States for some time. In April he was regularly appointed Assistant Sanitary Expert of this International Commission.

Dr. Edmund E. King (Lieut.-Col.), of Toronto, at the request of the Militia Department at Ottawa, selected 35 doctors, of Ontario for the Royal Army Medical Corps of the British Government. One hundred doctors are asked for from Canada and the other provinces will furnish the remaining 65 doctors.

Lieut. Harry Howard, of the East Surrey Regiment, was killed in action May 9th. He was the grandson of Dr. Howard of Montreal, at one time Dean of McGill Medical Faculty, and a son of Dr. Howard, who married a daughter of Lord Strathcona.

A number of residences, including summer homes, have been given to the military authorities to be used as convalescent homes for invalided Canadian soldiers. Sir William and Lady Mackenzie have given their home at Kirkwood, Victoria County. Sir Rudolph Forget has given his summer residence at St. Steirence on the banks of the St. Lawrence.

Dr. W. J. Gibson, of Belleville, has been seriously ill, after an injury and exposure to damp cold weather a deep seated abscess formed in his side. As the symptoms were very obscure it was not opened until some symptoms of septicæmia appeared. After free incision and drainage his condition was soon improved, but we understand he is still in a dangerous condition.

Mrs. J. W. St. John, widow of Mr. St. John, who before his death some years ago had been Speaker of the Ontario Legislature, has been appointed Deputy Superintendent of the Mercer Reformatory for Women. Some years ago, when she was Miss Cameron, a graduated nurse of the Toronto General Hospital, she was well known to many of the physicians of Toronto. As she has plenty of ability, tact, and kindness of heart, she is likely to make a capable officer.

Dr. J. G. Fitzgerald, Assistant Professor of Hygiene, University of Toronto, was appointed to take charge of the Laboratory for the camps at Niagara-on-the-Lake. One of his chief duties was to see that the water supply was satisfactory. A filtration plant for drinking water was installed and has been maintained under military direction.

## Obituary

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### T. A. AMOS, M.D.

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Dr. Amos, of Exeter, died March 25, aged 55. He graduated from Trinity University in 1885.

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### ROBERT P. AIKMAN, M.D.

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Dr. Aikman, of Grimsby, Ont., died of pneumonia, April 13. He graduated M.D. from Victoria University in 1868. After practising for some years at Burlington and then in Collingwood he went to Grimsby eight years ago.

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### JAMES MacARTHUR, B.A., M.D.

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Dr. J. MacArthur, a prominent and popular physician of London, Ont., died suddenly from heart failure, May 23rd, aged 60 years. He graduated from Queen's University in 1878. He was for many years a member of the Ontario Medical

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### WILLIAM HERMANNS CASE, M.A., M.D.

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Dr. Wm. Case, of Hamilton, died at the General Hospital in that city May 15, aged 79. The cause of his death was an accident some weeks ago, when he fell down a stairway at his house. He was a son of Dr. Wm. Case, a former well-known practitioner, and a grandson of Dr. Wm. Case, who came to Hamilton with a regiment of British regulars in 1812.

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### GEORGE NIXON FISH, M.D.

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Dr. G. N. Fish, 307 Markham Street, Toronto, died May 1st, aged 40. He had been ill for over a year with kidney and heart disease. He graduated M.D. from Trinity University in 1898. He practised in Pickering Township for about four years before removing to Toronto.



## Book Reviews

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*Nervous and Mental Diseases.* By ARCHIBALD CHURCH, M.D., Professor of Nervous and Mental Diseases in Northwestern University Medical School, Chicago; and FREDERICK PETERSON, M.D., formerly Professor of Psychiatry, Columbia University. Eighth edition, revised. Octavo volume of 940 pages, with 350 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$5.00 net; half morocco, \$6.50 net. Sole Canadian Agents: The J. F. Hartz Co., Ltd., Toronto.

The great increase in our knowledge of many of the diseases of the nervous system of recent years has rendered necessary a new eighth edition of this well-known text-book. The changes have been to a large extent those required by the great advances made in our conception of the cerebro-spinal fluid and its interpretation, particularly in syphilis. Infantile paralysis, too, is a subject of which our conception has materially changed, and has necessitated a careful re-writing of the text. Hæmadenology, so-called, has shown the importance of the ductless glands in nervous disorders. It goes without saying that all that is good has been incorporated in this book, which come to be recognized as a standard on mental and nervous diseases.

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*A Text-Book of the Practice of Medicine.* For Students and Practitioners. By HOBART AMORY HARE, B.Sc., M.D., Professor of Therapeutics, Materia Medica and Diagnosis in the Jefferson Medical College, Philadelphia; Physician to the Jefferson Medical College Hospital; one time Clinical Professor of Diseases of Children in the University of Pennsylvania. Third edition, revised and enlarged. Imperial octavo, 969 pages, with 142 engravings and 16 plates in colors and monochrome. Cloth, \$6.00, net. Lea & Febiger, publishers, Philadelphia and New York, 1915.

The appearance of a third edition of Professor Hare's Text-Book denotes the continued popularity of the works bearing the name of this well-known writer on things medical. The changes of ideas and increase in knowledge brought about in the last few

years soon render medical books out of date, and it is no easy task to re-write a large text-book and bring it into accord with the most recent knowledge on the subject.

This task, however, has been well performed in the book under discussion, and the subject of modern medicine is presented in a most readable manner. The scope and size of the book is naturally somewhat enlarged. It could not well be otherwise. Good use has been made of engravings and colored plates to illustrate the text. We venture to say that a hearty reception will be accorded it both by students and practitioners.

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*A Text-book of Diseases of the Nose and Throat.* By D. Braden Kyle, A.M., M.D., Professor of Laryngology and Rhinology, Jefferson Medical College, Philadelphia. Fifth edition, thoroughly revised and enlarged. Octavo of 856 pages with 272 illustrations, 27 of them in colors. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$4.50 net. Sole Canadian agents: The J. F. Hartz Co., Limited, Toronto.

The fifth edition of this standard work on Diseases of the Nose and Throat is to hand. While retaining its record for conciseness, new material has been introduced to a considerable degree, bringing the work strictly up-to-date. New chapters are given on Vaccine Therapy; Lactic Bacteriotherapy in Atrophic Rhinitis; Salvarsan in treatment of Syphilis of the Upper Respiratory Tract; Treatment of Spheno-palatine Ganglia Neuralgia; Negative Air Pressure in Diseases of the Accessory Sinuses; Chronic Hyperplastic Ethmoiditis; Congenital Insufficiency of the Palate; Lactic Bacteriotherapy; Pharyngeal Affections.

The function of the tonsil is discussed, and the surgical treatment brought up-to-date.

The book is well illustrated, many new diseased conditions and new instruments being shown.

Both general practitioners and specialists will welcome this new volume.

## Selections.

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### Radium Treatment for Keloids

F. E. Simpson, Chicago (*Journal A. M. A.*, April 17, 1915), recommends the use of radium for keloids, in which it has given him better results than any other method. Pure keloids, especially those of recent formation and in young children, can often be resolved with an amount of raying causing little or no inflammatory reaction. Keloids mixed with scar tissue are more resistant, but even these can generally be made to disappear by doses causing more or less destructive action. It is hard to state the exact dose necessary in each case, but with experience an approximate estimate can often be given. Pain is generally relieved at the same time with the resolution of the tumor. The apparatus and technic vary with the type of lesion; with keloids of considerable size, the varnish applicator is the best instrument. For linear keloids, such as may follow an incision, the radium tubes are very convenient, though the varnish applicators can be used by screening off all the healthy tissue. The general principle followed by Simpson is to give a dose sufficient to produce a slight but not extensive reaction. Repeated and strong reactions are usually unnecessary, and are liable to be followed by telangiectases. In favorable cases, there may be hardly a visible scar, but in other cases the skin may be left smooth and white, and sometimes it may be redder than normal. Two illustrative case reports are given and the article is illustrated.

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### Arsenic in the Spinal Fluid

G. W. Hall, Chicago (*Journal A. M. A.*, April 24, 1915), after noticing the observations which have been made in regard to arsenic in the spinal fluid, reports his experiments with sodium cacodylate, sodium arsenate, neosalvarsan and salvarsan, the details of which are summarized. The substances were introduced intramuscularly, or into the veins, and the spinal fluid examined at varying intervals afterward. In most cases the examinations of the spinal fluid gave negative results, but in four cases of neosalvarsan intraspinal injections arsenic was found. Salvarsan introduced intravenously gave like results.



except in two cases. He found that with the ordinary precautions of sterilizing the needle by boiling, some arsenic may be retained in its lumen; and this vitiated some of his earlier experiments. Later he observed greater care in washing out the needle, following a washing-out with ether with sterile water and then boiling. He has also excluded in his report the results with spinal fluid containing blood, in cases in which the different preparations had been previously administered, hypodermically or in the vein. There should be some way, he says, of testing the relative toxicity of the spinal fluid on the spirochætes after the injection of these different preparations of arsenic, and suggests also that by either increasing the blood pressure or decreasing the pressure of the spinal fluid arsenic may possibly be more readily introduced into the spinal canal.

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### Aseptic Technic

G. E. Brewer, New York (*Journal A. M. A.*, April 24, 1915), gives an interesting account of his studies and experiences with aseptic technic, since his first service as attending surgeon at the City Hospital, New York, and also reports some recent observations made at the Roosevelt Hospital, and of the methods used of reporting weekly the records of every case. The technic used at the Roosevelt Hospital is described in detail, and tables are given showing the results. In the earlier part of his service at the Roosevelt Hospital he had several cases of infection, and three other cases of more than slight infection, which led him to make careful investigations in every case for faults in technic. He established the custom of giving a prize to the house surgeon who had no infections of clear surgical cases during his six months' service; and this has been won by three men, who are named. His weekly reports also came to include the record of all catheterizations, and since records have been kept, in no case has infection resulted from catheterization. Brewer says: "To recapitulate briefly the facts bearing on the main object of this communication, namely, to give the percentage of infections occurring in our clean cases during each of the five periods of six months since Jan. 1, 1912, it will be seen that for the first six months in 1912, the percentage of infection occurring in clean operative wounds was 2.4 per cent.; for the second six months 1.2 per cent.; for the first

six months of 1913, 1.8 per cent.; for the last half of 1913, 1.6 per cent., if we include the three cases in which infection occurred as a result of using an unsterile solution of novocaine for local anæsthesia, for which none of the operating-room staff was in any way responsible, or 0.4 per cent. if these are excluded. For the six months ending July 1, 1914, no infection occurred in the 273 clean cases. If, as seems fair, we exclude the three cases referred to above, during the year from July 1, 1913, to July 1, 1914, only one infection for which the operating staff could be held responsible occurred in 516 cases, or a little less than 0.2 per cent."

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### Unskilled Tampering with Human Ailments

"One who wants his watch repaired sends it, not to a blacksmith, but to a skilled watchmaker: to one who knows the position and purpose of each of its delicate and intricate parts. Here the importance of expert service and the ability to render it are recognized. Not so, however, when the delicate life processes of a human being, rendered sensitive by sickness or injury, are in need of repair. Here the man who is careful to send his watch to an expert is likely to patronize the blacksmith when he or one of his family is ill. To recognize promptly and positively many of even the common diseases," says *The Journal of the American Medical Association*, "requires a skilled diagnostician who understands the use of scientific laboratory methods. The successful treatment of diphtheria, malaria and syphilis—as examples—depends on an early and positive recognition of the causative agent, respectively, the Klebs-Loeffler bacillus, the *plasmodium malarie*, and the *treponema pallidum*. To be able to do this requires a knowledge of these organisms and skill in the use of the microscope and laboratory methods of diagnosis. The cure of many diseases, such as tuberculosis, cancer, spinal meningitis, etc., depends not only on a positive but especially on an early diagnosis, and this likewise requires a thorough training in modern medicine. Without a training in scientific methods, the diagnosis of these diseases is uncertain, or impossible, since the signs and symptoms easily lead to their being confused with disorders requiring radically different methods of treatment. Without a correct diagnosis any form of treatment is guesswork and unscientific. A training in the branches fundamental to modern

## "A Man Is As Old As His Arteries"

—Osler

Authorities agree that "arteriosclerosis," the cause of old age, may be postponed many years by right living and the avoidance of stimulants.

The poisonous principle, caffein, in coffee and tea expends the reserve energy, leaving the body a physiologic bankrupt. The heart and blood vessels are whipped and damaged; the blood pressure is increased; the impaired circulation inevitably results in disease of the digestive functions, liver, kidneys and nervous system.

Such symptoms of caffeinism as chronic indigestion, cardiac palpitation, constipation, hepatic and renal insufficiency, nervousness and insomnia call for the interdiction of coffee and tea and suggest an order for

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The reason is very clear.

Postum resembles coffee in appearance and taste, but does not contain caffein or other poisonous principles. It is a delicious beverage made of clean, whole wheat skilfully roasted with a small percentage of wholesome molasses.

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scientific medicine is an essential qualification for all who undertake to treat human ailments, no matter what treatment be adopted. This is a fundamental fact that defies contradiction. It is immaterial whether the treatment be a form of massage or tissue manipulation, and given under the name of osteopathy, chiropractic, naprapathy or spondylotherapy; whether it be psychotherapy, given under the name of Christian Science, mental healing, or what not—the fact remains that any legislation relative to the regulation of what is known as the practice of medicine—that is, the healing of the sick—that does not recognize this fundamental fact is not in the interest of the public health or the public good.”

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### The Significance of the Von Pirquet Test

In the *Medical Record* of January 9th, 1915, Frazer reaches these conclusions as to the von Pirquet test in reaction:

(1) A positive cutaneous reaction is less frequent in children than it was once thought to be, the high percentage of reaction obtained being due to the application of the test chiefly to the infected children of the poorer classes, and (2) that therefore a positive reaction is of greater significance than it is commonly supposed to be. (3) That while there is an increasing percentage of reaction with years, and a corresponding decrease in the value of reaction, the view usually held that the reaction has significance only during the first two or three years of life is not borne out by recent figures, and that we should be suspicious of a reaction occurring up to the age of ten. (4) That annual tests be instituted in the effort to detect early infection, and that, bearing in mind the fact that many if not most cases of clinical tuberculosis in later years are due to renewed activity of old foci, we should seek by proper means to prevent the development of “infection” into “disease.” (5) That a negative reaction, negative on repetition of the test, is valuable evidence of the absence of tuberculosis unless the child is suffering with advanced or acute disease, especially measles. (6) That further study of the test is necessary before we can fully interpret the reactions, and that, in the future, it is possible that refinements of technique may enable us to determine with greater accuracy the recency of the infection.—*Therapeutic Gazette*.

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Antipyretic and Febrifuge

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Salacetic Acid, as is well known, is made by the action of Acetyl Chloride on Salicylic Acid, and has been extensively prescribed under the names of "**Acetyl-Salicylic Acid,**" "**Salicyl-Acetic Acid**" and "**Aspirin.**"

Many physicians of late have prescribed **Strychnine** in combination with **Aspirin** for the sake of its stimulating effect, but the ordinary Salts of Strychnine do not act simultaneously with the Antipyretic, and do not lend themselves to the correction of the gastric troubles following the use of **Aspirin.**

Professor Alex. B. J. Moore, Dean of the Montreal College of Pharmacy and head of our Central Laboratories at Montreal, has produced an almost tasteless **Salt of Strychnine**, which is one hundred and twenty times more soluble than the alkaloid itself. It produces in the same dose the Strychnine characteristic effects upon the heart and the central nervous system.

The use of this agent in combination with **Aspirin** represented in "**National Dolorant Tablets,**" produces the desired combined effect, and allays to a remarkable extent the gastric disturbances following the use of a combination containing a less soluble Salt of Strychnine.

Free sample supplied to physicians on application.

Put up in Bottles of 100 Tablets

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## Miscellaneous.

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### **Anaesthesia of the Head and Neck by Inhalation of Oleum Sinapis**

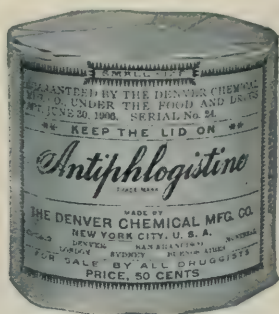
Early in 1914, at a meeting of the Austrian Otological Society, A. E. Schwarz read a paper on the action of oleum sinapis when inhaled by the subjects of inflammatory conditions of the nose, mouth, throat, and ears. L. Flodquist (*Svenska Läkarsällskapets Förhandlingar*, vol. xii.) has tested and confirmed Schwarz's observation that the inhalation induces anaesthesia of the trigeminal nerve. Evidently this anaesthesia is due to some particular constituent of oleum sinapis which is peculiar to it, for inhalation of various other pungent drugs, such as ammonia, does not induce anaesthesia. The drug is held to the nose, while the patient closes his eyes to avoid conjunctivitis. He compresses one nostril while he inhales the drug with the other. He naturally inhales with the nostril on the same side as that in which anaesthesia is required. When the inflammation is bilateral, the patient inhales alternately with each nostril until a violent attack of coughing is provoked. Schwarz treated 20 cases of toothache, and found the pain vanish for several hours as soon as the oil was inhaled. It is immaterial whether the toothache is due to pulpitis or periostitis, and in no case does the drug seem to have failed in banishing the toothache. On the ear alone he made 44 observations, which showed that the inhalation is strikingly effective in the various forms of earache. In 19 cases he performed paracentesis of the tympanum, previously rendered anaesthetic by the inhalation. The author has found the anaesthesia thus induced so complete that children have not stirred while the tympanum was being perforated. Pure otalgia, tinnitus, and pain following operations on the mastoid process are all banished by the inhalation, which is not, however, effective on the tinnitus of otosclerosis. Tonsillectomy is rendered painless by the inhalation, which also prevents the occurrence of post-operative pain and dysphagia for one to eight hours. Again, in angina phlegmonosa an incision can be made and pus evacuated without pain, and headache due to empyæma of the accessory sinuses and the pain and dysphagia of cancer of the tonsil can be temporarily banished by the inhalation. Schwarz found it gave no relief in a case of trigeminal neuralgia, possibly because the reflex may have



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physiologically active from the first moment of contact; physically clean, convenient and agreeable to the most fastidious patient; protective to the most sensitive skin, which, on removal of poultice, even after 48 hours, is always in a normal, wholesome condition—.

The foregoing briefly describes



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Needless exposure to the air, impairs its osmotic properties—on which its therapeutic action largely depends.

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which, for more than twenty years, among progressive physicians, has superseded the old-time, bacteria-breeding, soggy, uncleanly, disagreeable flaxseed, bread-and-milk, and other

unscientific, ineffective poultice; most of which, on removal, leave the skin softened to a degree bordering on, if not actually producing an abrasion with possible infection later.

*Physicians should WRITE "Antiphlogistine" to AVOID "substitutes."*

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been broken by disease in the ganglion cells or in some other section of the trigeminal nerve. The author has found the inhalation strikingly successful in an intractable case of paresthesia linguae, and Schwarz found it gave great relief in tuberculosis of the larynx associated with dysphagia.—*B. M. J.*

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### Visceral Gymnastics in Ptosis

Carnot (*Journ. des praticiens*, January 16th, 1915) emphasizes the importance of the part played by ptosis in the pathology of the digestive apparatus. The modification in the position of the abdominal viscera induced by gravity is more marked in individuals lacking in general and local tonicity. The position of the viscera, too, is modified considerably by the position of the body. Radiography has been of great value in ascertaining these facts. The stomach is normally fixed by a system of ligaments and at either extremity by the œsophagus and duodenum, the latter being the most fixed of all the viscera. The small intestine likewise tends to drop by its own weight, but this is not so important in the case of the small intestine, as mobility is one of its functions. The large intestine is less mobile than the small intestine, and any displacement in this case is less massive than in the case of the latter. The most fixed points of the large intestine are the colic angles, the left being rather higher than the right. When the right colic angle descends, if the left remains in place, the transverse colon is stretched between the two points like a garland, in the concavity of which the stomach rests as in a hammock. The laxity of the ligamentous attachments both at the iliac and sigmoid flexures, is also a contributory cause of ptosis, but these deviations are not so important. According to the author, the left lateral position is the best during gastric digestion, but defective from the point of view of evacuation of the stomach. It also increases the left colic angle and tends to retain matter in the colon, while the right lateral position assists its onward progress. In the right lateral position the pylorus is open and permits of the evacuation of the gastric contents. With these facts in view, static or orthopædic gymnastics may be employed. The author recommends, with Glénard, the practice of assuming the position of the Mohammedan at prayer for ten minutes each day before retiring to rest as being of considerable benefit in these cases.—*B. M. J.*

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### A Consideration of the Antiseptics used in the Treatment of Infections of the Genito-Urinary Organs

Ravogli (*American Journal of Surgery*, January, 1915) reviews the antiseptics used by ingestion through the mouth and by local application. Of the mouth antiseptics he gives highest praise to hexamethylenamine or urotropine. Concerning the value of the vaccines he expresses proper doubts. He places great confidence in the local treatment by means of instillations or irrigations with local antiseptics.

Aluminum acetate is useful in colon bacillus infection. Clinically it has given good results in 2-per-cent. solutions. Instillations of 1 to 3-per-cent. protargol, or more often of 20-per-cent. argyrol, have been used. Of course no antiseptic has much value unless means to remove the source of infection are used. A good drain is obtained by the catheter left permanently in the bladder. The removal of infected secretions from the spermatic vesicles by means of digital massage is often of great benefit, as in those organs infections are maintained and the urine spreads infection to the bladder and to the other parts of the genito-urinary tract. If strictures are present they must be dilated or cut. In cases of deep infection, the old standby, chinin, surpasses any other internal antiseptic, and repeated irrigations with solutions at different strengths of potassium permanganate excel any other local applications.—*Therapeutic Gazette*.

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### Induced Pneumothorax

In the *Interstate Medical Journal* for December, 1914. Schwatt says that these are the absolute indications:

1. Moderately and far-advanced, severe disease of one lung with slight or moderate disease of the other side, which does not extend over more than one-third of the lung, and without active cavities. In such cases the compression should be effected slowly and the uncollapsed side be carefully watched for increased activity.
2. Moderately and far-advanced disease of one side of slight or moderate severity with disease on the other side, as described under 1, especially in cases in which a fair trial has been given to the usual modes of treatment.
3. Severe and particularly long-continued hæmoptysis, irrespective of disease on the other side, provided it can be

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definitely determined where the bleeding comes from. In cases in which there is no contraindication in the extent of the disease of the other lung, the compression should be kept up. In cases with too extensive disease of the other lung, the lung should be permitted to re-expand after sufficient collapse has been produced to control the hæmoptysis.

Schwatt names the permissible indications as follows:

1. Severe and extensive disease of one side, with disease on the other side more extensive than described under "absolute indications," in cases with general symptoms of toxæmia which may be definitely ascribed to one lung.

2. Initial cases, particularly those with severe symptoms not showing signs of improvement or arrest under hygienic-dietetic and specific treatment after a reasonable length of time—not exceeding six months.

3. In all classes of cases under "absolute indications" with laryngeal tuberculosis of slight or moderate severity and non-ulcerative.

The dangers and complications of pneumothorax therapy should not be considered as contra indications to the application of the treatment.—*Therapeutic Gazette*.

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### The Treatment of Cholera by Adrenalin

We still know so little in regard to the ultimate effects of the various internal secretions upon the human body in health that it is difficult for us to determine their exact advantages and disadvantages in the presence of disease, the more so because it is becoming increasingly evident that the internal secretions of more than one gland are materially altered when disease is present. The secretions of all these glands interlock so closely that it is often unnecessary or unwise to add to natural secretions the internal secretions derived from the glands of animals. The field in which some of these internal secretions is being used is, however, constantly widening, and possibly more is being done in Europe in regard to the study of their effects in disease than in America.

Within a comparatively short time a number of papers have appeared concerning the value of adrenalin in the treatment of cholera, and in *La Presse Médicale* of December 10th, 1914, Naamé tells us that he has read with great interest an article by Lagane on the "Prophylaxis and Treatment of



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Cholera" which appeared in the same journal of November 5th, 1914. He regrets that the author did not mention the treatment of cholera with adrenalin, a method of treatment which has been employed with success by others. Analyzing the symptoms of cholera he finds that they chiefly consist in vomiting, sweats, the algid stage, cramps, and a low arterial tension, all of which are dependent on the infection with the specific organism, and all of which are in one sense somewhat represented by the conditions in which there is a lack of secretion on the part of the suprarenal glands. He has shown, he thinks, that patients suffering from Asiatic cholera are able to tolerate massive doses of adrenalin with advantage, and he employs hypodermically from four to six milligrammes in the twenty-four hours, placing the drug in normal salt solution. The adrenalin combats all the symptoms of lack of suprarenal secretion that have just been named, and yet in no way prevents the employment of other measures which may be taken for the relief of the patient.

Naamé believes that such uses of adrenalin are indicated in the treatment of other diseases characterized by low pressure, as diphtheria and typhoid fever.—*Therapeutic Gazette*.

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### **A New Treatment of Epilepsy Based upon Pathogenesis**

The general assumption that the cause of epileptic convulsions is cerebral defect only is contradicted by the occurrence of convulsions in uræmia and puerperal eclampsia. In these conditions the convulsions cease along with the toxicosis. Experimental induction of epileptic seizures by absinthe corroborates this.

As not every cortical injury or neoplasm produces epilepsy, the author assumes a toxic factor in addition. The leucocytosis, digestive disturbance, urinary toxicity and excess of serum nitrogen which many cases show, are confirmative.

Two modes of treatment present themselves aside from the reprehensible attempt to narcotize cerebral irritability, which only deceives the therapist, but does not cure the disease. The first is to increase the elimination; this aim is inadequate as not attacking the source of the disease, and some of the procedures used, particularly that of purgation, are injurious in still further disturbing nitrogenous metabolism. The experiment attempted by the author was to prevent the toxic condition supposed to cause the attack. This he did in the cases described (1) by a limitation of the dietary protein (2) by giving most of this at mid-day so that it may be metabolised before sleep (3) by facilitating osmosis through giving abundantly of the salts of the alkalies as fruits and vegetables; (4) by supplying sufficient calories by means of the fatty and carbohydrate foods; (5) by preventing constipation, by means of an adequate bulk of non-putrescible pabulum. These principles are embodied in the "model diet."

A girl of 15, showing renal inadequacy, who had epileptic attacks for four years, has remained well since the treatment began in February, 1914.

A man of 27, who had attacks for four years, which were rapidly aggravating, has had none since he was prescribed for in 1911.

Holiday excesses provoked an attack in a schoolboy three years ago; a proper regime restored him to health. He is not under observation, but only one attack since is said to have occurred.

The attacks of a man with sclerotic changes of the brain were quickly cut short by the "model diet."

The relation of epilepsy to migraine is mentioned; and a case of recurrent headache is chosen to illustrate the common pathogenesis and cure.

Finally the purely secondary role of emotion is indicated.

# The Canadian Practitioner and Review

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## Original Communications

### THE CANCER PROBLEM

By JOHN FERGUSON, M.A., M.D., Toronto.

In the past a number of diseases have attracted much attention, such as syphilis, leprosy, tuberculosis, and smallpox. But leprosy and smallpox have practically been brought under control; and syphilis is so thoroughly understood, and can be so effectively treated, that it has lost much of its power for evil. That tuberculosis is being brought under control and its ravages greatly lessened, is now apparent to all. Its frequency is also being much reduced. When we come to cancer, a very different statement must be made, for it not only holds its own unchecked, but, on the contrary, is steadily on the increase. It is understood that in the civilized countries of the world there are 1,500,000 cases of cancer, with about 500,000 deaths annually. In the United States, in 1912, the number of deaths from this disease was nearly 50,000.

There are not many genuine examples of cancer growths among reptiles and amphibians. But the disease becomes more frequent among fishes and animals other than man. It is when we ascend to man that its full incidence is met with. It is admitted by the highest authorities that cancer is increasing at a percentage rate more rapidly than tuberculosis is declining. In England, according to Williams, the death rate from cancer during the past fifty years has trebled, whereas that from tuberculosis has been cut in two. The same author contends that the improved conditions of life, mainly better food, that have led to such a marked fall in the death rate from tuberculosis, are to a great extent responsible for the increased death rate from cancer. It has now become known that those in easy circumstances who can indulge their fancies in the good things of life

are much more prone to the disease than are those who fill the humbler strata of humanity.

As one pursues the study of the frequency of the disease, it becomes apparent that those who live a savage or semi-savage form of life suffer much less frequently than do those who enjoy the comforts and advantages of civilization. It has also been observed that as the less civilized become more refined and adopt the methods of the more cultured, the disease rapidly increases in frequency among them. Much consideration has been given to the frequency of cancer among various tribes, and it has been well observed that among the natives of New Zealand, Australia, the Fiji Islands, Africa, and many other places, cancer is very infrequent; and much more so the more closely these natives adhere to a vegetable diet. As the natives begin to consume more fish and meat foods, the disease begins to increase among them. In one year, among 19,529 deaths in Cairo among persons whose diet was almost exclusively of a vegetable character there was one death in 1,028, while in England, in the same year, there was one death in every 29. In 1840 there was in England, one death from cancer in every 5,646 of the population, or one death from this disease to every 129 deaths from all causes. In 1905 there was one death to every 1,131 of the population, and one death in every 17 of the mortality. Similar results can be found by examining the statistics of other countries. Careful study of the statistics of Switzerland, France, Italy, the United States and other countries, proves beyond a doubt that death from cancer is steadily, and in some places rapidly, increasing.

When we come to the question, What is the nature of cancer? we are confronted with grave difficulties. The experimental, clinical and pathological investigations all tend to prove that the disease is a serious disturbance in the life history of the normal cell. This leads us, however, but a short distance towards the true solution of the problem. It still remains to be explained why certain cells grow or group themselves so as to constitute what is known as a cancer. This brings us to the fundamental question that there must be some change in the nutrition of these cells that results in the new and independent form of existence taken on by them when they cease to be benign and become malignant. It is this change that has been designated as diathesis.

In the history of every cancer there is a period when all that exists is this diathesis or predisposition. That there is



something that is more than a mere local condition is made quite clear by such events as the formation of cancer after the removal of ordinary benign growths, and its return after the most thorough removal. Events such as these go to show that the disease is more than a local affair, and has a constitutional side to it. It is true that nuclear or cell division lies at the bottom of all growths, whether normal or malignant. They differ only in method and activity. In healthy tissue cell proliferation proceeds only in a normal manner, and the cells give rise to homologous cells. Attempts have been made, especially by Wakefield, to prove that the cancer cell is the result of sub-catabolism caused by some alteration in the blood plasma, induced by hyperacidity.

Having got to the length of granting that there is some general blood state, or materially changed condition of metabolism, the next step is reached, namely, the new and independent existence assumed by the cancer cell. Ewing and others contend that this is due to some change in the relationship between the centrosome and the nucleus of the cell. The essential question is one of growth and proliferation, and this carries one back to the other question of nutrition; and this, again, to the environmental plasma around the cell. It is thus that some cells may take on an independent existence regardless of the surrounding tissues. In the early period of life, when growth and nutrition are at their best, cancer formation is restrained; but as growth and nutrition begin to wane with advancing age this form of growth makes its appearance.

This view is borne out by the fact, now well attested, that cancer may undergo self cure. The affected individual may so change as to cause the inhibition of the growth and proliferation of the cancer cell. This has been brought about by a radical change in the method of living, especially in the matter of diet. But it sometimes occurs when no reason can be assigned. Such a fact proves that though the cancer cell is an independent entity, and has acquired the power of independent existence apart from the original tissue to which it rightly belongs, it can, by some change in the metabolism of the organism, be put out of activity and made to disappear altogether. This has been shown experimentally in the case of mice, by the manner of feeding them. On a vegetable diet they cannot be inoculated, whereas on an animal diet this is quite readily done. Further, it has been shown that those which have been inoculated frequently recover when placed on a vegetarian diet.

Much work has been done on the chemistry of the disease, but it has all been done when the cancer is well advanced, and for this reason the findings are not very valuable, as the disease has deranged the function of one or more of the important organs of the body. The chemistry that is required is a careful investigation of the changes in blood and exudates, secretions and excretions, at the very commencement of the disease, with the view of throwing light upon the biochemical conditions that have favored the start of the new formation. Of this sort of chemical research we have none as yet.

All this brings us to the conclusion that a cancerous growth is composed of abnormally acting cells that were formerly quite normal; and the primary reason for this abnormal functioning of the cells is that they have been subjected to some abnormal condition of nutrition. By this means they are now able to lead an independent existence, and be transported to other organs and there keep on proliferating. In other words, as Sir Henry Morris has well said, they have taken on a new type of growth and must be regarded as parasitic to the normal tissues. In their growth and proliferation they can produce active substances that act as toxic agents of the nature of hormones.

When we pass to the study of the etiology of cancer, we are brought face to face with many theories. Heredity, parasites, contagion, age, injury, locality, occupation have been advanced as exciting or predisposing causes for the disease. On each of these much has been written.

At one time heredity was regarded as an important factor in the causation of the disease. Of recent years this view has been boldly challenged and we are now told from such authority as the Imperial Cancer Research Workers that heredity may be ignored. But before we accept these recent views it is necessary to explain away some facts. One only shall be mentioned. In the conduct of life insurance companies large numbers of lives are under observation, with their family histories and the causes of death when they become claims. Here is the result. In a vast accumulation of experience, covering fifty years, the percentage of deaths to all the deaths in policyholders without cancer taint, was 5.04; but, when there was such a taint in the family history, the percentage of deaths, due to cancer to all the deaths, rose to 9.3, or nearly double.

Parasitism and contagion may be dismissed at once. There is now no foundation for either to rest upon.

Age is an important factor, as nearly all cases of cancer are met with after forty years of age. But this is not the real cause, as only a very small percentage of the aged suffer. The influence of age is of that sort that predisposes the cells to take on cancerous growth, when other real causes co-operate.

Traumatism is also one of the influences that have long been observed to have much to do with the causation of the disease. Some place the causative relationship at 50 per cent, while others contend that repeated irritation is found as an etiological influence in practically all cases. The weight of opinion favors repeated irritation, such as smoking, the Kangri stove, chimney sweeping, rather than a solitary injury. But every injury or irritation cannot be regarded as the sole cause, as there are many instances in which no such history can be found.

The theory of embryonic rests has been urged by some writers of eminence. According to this theory there are certain masses of cells of embryonic type planted where they should not be, among the tissues. This theory has the support of such an authority as Roger Williams. But this theory breaks down at a vital point. Cancer is of the epithelial type of cell, so that the cell rests must be of this type. In the next place, cancer occurs in parts of the body much subjected to traumatism, as the lips, the tongue, the throat, the stomach, the rectum, the uterus, the mammary gland, and the region of the gall bladder. If this theory is to be accepted, it follows that these cell rests must be placed in these positions by special selection. This view one can hardly admit. Then, again, these are positions rich in epithelium, and it seems rather inexplicable that embryonic cell rests of the epithelial type should be heterogeneously placed among normal epithelium. But, further, many escape having cancer, and yet it must be supposed they have these embryonic cell rests as well as those who fall victims.

The influence of living along the route of rivers, in valleys, on the shady side of mountain ridges, in localities where the atmosphere is impregnated with smoke, have been urged at different times and by different writers. None of these conditions can be admitted as more than mere theories, against which there is the great weight of observation.

The influence of diet has been shown to be most important in its relation to the causation of cancer. Savages who live on poor food, and wellnigh exclusively on vegetable products, are almost exempt from cancer. In the civilized countries where good food, especially containing a liberal percentage



of meat, is freely made use of, cancer is very prevalent and this prevalence seems to maintain a steady ratio to the per capita consumption of animal foods. The incidence of the disease has been gradually rising as the civilized countries have been becoming more wealthy and indulging more freely in a rich dietary. France is a much wealthier country than Italy, and the former has a much heavier death rate from this disease than the latter country. But this is not all. In Italy, in some places, the people are much more comfortable than they are in other districts, and it has been observed that in the former the death rate from cancer is much higher than it is in the latter. This disposes of the view that the Italians are less disposed to the disease than are the French, because the Italians show a marked tendency to variation according to the local status of the people.

In addition to the liberal consumption of meats, wealth brings with it also a freer indulgence in the use of alcoholic beverages, tea, coffee, and stimulating foods and condiments, with a greater amount of sedentary life on one hand and nervous strain on the other. All this has the effect of profoundly modifying the course of metabolism, and laying up in the epithelial elements of the body that quality that induces them to take on an independent existence with a deadly nature when subjected to some one or other of the exciting causes, the chief one being repeated irritation.

This broadened view of cancer explains the two sides to the disease, namely, the local and the general. It is true that at first the disease is a local affair, with a constitutional predisposition. This will also explain both the successes and the failures that attend the surgical treatment, by the removal of these new growths. This view also throws light upon the question of heredity. Much has been said on whether or not acquired characteristics can be transmitted. We know that gout and insanity are acquired characteristics of the family tree, and we know the tendency to these diseases is inheritable. So with cancer. Families living in a certain way give a bias to their constitutional leanings, which habits, occupations, injuries accentuate and call forth into activity. Cancer should no longer be viewed as a purely local disease; but rather as a local disease with genuine constitutional background. There is first of all the soil which is the product of the habits of life; and there is the new formation which is the result of irritation in the vast majority of cases. A vision like that which was in Matthew Arnold's mind—

Born into life, man grows  
     Forth from his parents' stem,  
 And blends their bloods as those  
     Of theirs are blent in them;  
 So each new man strikes root into a far fore-time.  
 Born into life, we bring  
     A bias with us here,  
 And, when here, each new thing  
     Affects us we come near;  
 To tunes, we did not call, our being must keep chime.

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## THE RELATION OF SCHOOL CHILDREN TO THE ANTI-TUBERCULOSIS CAMPAIGN \*

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BY J. H. HOLBROOK, HAMILTON.

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Since the establishment of the Preventorium for school children in connection with the Mountain Sanatorium, and especially since the attention of parents has been more directly called to the physical condition of their children, following the appointment of school nurses in the Hamilton schools, there has been a fairly large attendance of school children at our tuberculosis dispensary, and, as a result, our views of the nature of pulmonary tuberculosis have been very considerably altered.

During the early years of the Sanatorium we considered that pulmonary tuberculosis in children was a comparatively rare condition, for the usual class of case sent to us was the fairly advanced adult case, often running high temperature, with moist sounds in the lung, and with sputum in which germs of tuberculosis were present. (Even yet this type of case is far too common, for though some cases never present themselves for examination until this stage is reached, yet far too many are allowed to reach this stage before Sanatorium treatment is suggested.)

In studying these cases the difference that appears to me most striking between the adult cases and those of childhood is the tendency to suppuration in the adult, and the rarity of this condition in the child. (The only explanation I can offer for this difference is that in the lungs and other tissues of the child there is that condition associated with growth, and as a

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\*Read before the Ontario Medical Association, Peterborough, May 27, 1915.

result, the tissues tend to heal readily, but after adolescence, when the body growth practically ceases, this condition disappears, and this change must tend to retard the repair of the diseased area. As a result there is in the adult a tendency for the blood supply to be gradually cut completely off from the central part of the inflamed area, leading gradually to death or suppuration of this central area. Once the centre of a tuberculous area breaks down it is not long before the germs of mixed infection gain an entrance through the respiratory tract and in this way the suppurative process is continued indefinitely. At any rate, whether this explanation is correct or not, the tuberculous process in the child shows a marked tendency to heal, while in the adult it shows a much more decided tendency to suppurate.)

This difference must be remembered in diagnosing the disease at the different ages, for the physician who has formed the habit of diagnosing tuberculosis by means of moist sounds associated with suppuration, will be at sea when he meets with the disease in the majority of children.

Now, to show the close connection between this disease in the adult and the child; we need only to compare the physical signs of the disease in an incipient stage in adults before suppuration has set in, with those usually found in the child. In such an early adult case, where moist sounds cannot yet be heard, the only signs will be those due to the inflammation in the lung. Remembering the four cardinal symptoms of inflammation, namely, calor, tumor, rubor, dolor, and remembering also that the lung tissue is not supplied with sensory nerves, and that it is invisible to us, we have only the first two conditions, namely heat and swelling, to look to for a diagnosis. The thermometer decides the presence of the first, and percussion and auscultation that of the second, for swelling in an inflamed lung will crowd out the air and produce a greater or less degree of dullness on percussion, and usually a proportionate degree of change from normal vesicular to broncho-vesicular or bronchial breathing over the diseased area. In percussion, two points should be remembered. In the first place, tuberculosis is a very slow chronic process, and the dullness at this early stage will not be extreme, so the examiner should not use the heavy percussion commonly employed in pneumonia, but a stroke so light that the diseased area is detected more by the disappearance of the sound than by a change in the pitch of the note. Then, if the old rule is always remembered, that the examiner should proceed from resonance to dullness, he will usually



be compelled to begin midway of the chest and proceed toward the apex and then return and proceed towards the base.

Then, on auscultation, the examiner will again proceed from normal lung towards the apex and towards the base and the findings of auscultation must confirm the suspicions aroused during percussion. If we do not find the change from normal in the breath sounds beginning at the point where the change occurred in percussion, our conclusion with regard to one or the other process is wrong. In a fairly acute case where sup-puration has not begun, the bronchial character of the sound is very characteristic, and indeed the degree of prolongation of the second sound and the change in pitch are often a good guide in deciding the acuteness of the condition.

In such a case there may still be an entire absence of sputum, but the associated symptoms are very characteristic, there being an under-nourished condition, with anæmia and paleness, and especially a feeling of fatigue out of proportion to the amount of exercise taken.

But the physician who is continually on the search for this class of case will frequently meet with a very confusing condition where there is slight dullness on percussion, with breath sounds slightly prolonged in expiration, but with the note still fairly low pitched.

If a four-hourly, or better, a two-hourly temperature record of such a case is kept for a week, and no rise above normal is found, then where the examiner can definitely exclude other conditions he will be forced to conclude that this dullness marks out an area of lung that was once actively diseased, but is now healed by fibrosis. This is the plainer when it is remembered that no tuberculous lung tissue on healing is ever restored completely to the normal condition. Thus we see that the word "cure" in tuberculosis is only a relative term, and that an early diagnosis becomes a vital matter if the patient is ever to be restored to anything near a normal working capacity.

Now, in going into the history of these cases with normal temperatures, but slight abnormalities in percussion and auscultation, one will be struck with the frequency with which he is told that the patient has not had any recent illness, and possibly he can give no history other than that he was always thin and under weight as a child, and that he used to tire easily. Indeed in some cases even this history is lacking. But the only conclusion that can be arrived at in any of these cases is that the active trouble of which we now find the healed evidence must have dated back to childhood.

The best proof that this conclusion is correct comes with the examination of a large number of school children selected because they are under-nourished and pale and grow very tired before the day's studies are over. On making a study of a large number of these children, one will be astonished at the large percentage that show some dullness on percussion and some degree of change from normal in the breath sounds. In some of these cases with only slight physical changes a normal temperature record may be found, but where the dullness is decided, and where the breath sounds are bronchial or decidedly broncho-vesicular in character, there is almost invariably found to be an abnormal temperature when a four-hourly record is kept for a few days. The majority of these may not show moist sounds in the chest and have no sputum, but to confirm the diagnosis of pulmonary tuberculosis we have the X-Ray, and the Von-pirquet tuberculin test, and to further assure us we now have the reports from a large number of eminent pathologists who have given figures showing the frequency with which they found this condition present post mortem in children who died from some other diseases than tuberculosis. The only conclusion we can come to is that the cases of tuberculosis in school children are comparatively frequent. I think we must further conclude that the adult suppurative case, the adult incipient, the adult arrested case, and the case in childhood, are not unrelated conditions, but that one succeeds the other in natural sequences in the great majority of the cases of tuberculosis.

If such a view is correct, it places the child in a new light, with regard to the stamping out of the disease. Discussing this question in a recent number of the *British Journal of Tuberculosis*, Fraser has said, "There are many of us who think that the effort to eradicate tuberculosis from among us has begun at the wrong end—that the stable is being locked after the horse has been stolen." With regard to the time of infection, authorities now claim that resistance to infection is least at the commencement of life and gradually increases until in the adult the acquired immunity is usually so great that direct infection is rare, except where there is the grossest of carelessness.

If these authorities are correct, the modern phthisophobia is ludicrous, the average adult being far too much concerned about his own danger, and far too little concerned about the danger to the little child. Such a view would establish the fact that while the danger to the child is from without, the

danger to the average adult is from within, for with an infection already implanted, the vital point to the adult is to maintain good resistance by proper healthful living. In other words, the child requires protection, but the adult needs to learn *to live*, with all that term can signify.

In support of these statements I wish to refer to the work of several investigators, for if the disease among children is as common as suggested, proof of it should not be lacking. Hamburgers's figures for Vienna are much higher than with us, for social conditions in Vienna are lower, but he found by post-mortem examinations of a large number of children who died of diseases other than tuberculosis, that the percentage of tuberculosis children was:

|                   |      |
|-------------------|------|
| 0- 6 months ..... | 0 %  |
| 7-12 " .....      | 4.5% |
| 1- 2 years .....  | 17 % |
| 3- 4 " .....      | 30 % |
| 5- 6 " .....      | 34 % |
| 7-10 " .....      | 35 % |
| 11-14 " .....     | 53 % |

Hamburger added that the percentage would be still higher if microscopic examinations had been added to ordinary observations.

Calmette, by skin tuberculin test, found that about 60% of children in his series were tuberculous.

Dr. R. W. Philip made a study of 1,000 school children of Edinburgh and found that more than 30% showed evidence of tuberculous lesions.

In Hamilton we have in the last four years treated 238 school children who had active signs of tuberculosis, out of a school population of 12,046, practically 2 per cent., but our accommodation for treatment was very limited, and no thorough canvas of the schools was made, and this number does not include numerous cases where the parents preferred to keep the children with active trouble at home, nor many more children with very slight or inactive lesions. We were simply able to treat as many as possible of the more serious cases that came to our notice.

At our dispensary we have found a few cases with definite signs of lung involvement at as early as two years of age.

In a series of 296 cases reported upon by Fraser he found the age incidence to be as follows:



| Age.          | Cases. | Age.              | Cases. |
|---------------|--------|-------------------|--------|
| 3 years ..... | 0      | 10 years .....    | 31     |
| 4 " .....     | 5      | 11 " .....        | 18     |
| 5 " .....     | 19     | 12 " .....        | 37     |
| 6 " .....     | 37     | 13 " .....        | 34     |
| 7 " .....     | 38     | 14 " .....        | 6      |
| 8 " .....     | 40     | 15 " .....        | 1      |
| 9 " .....     | 25     | Age not stated... | 5      |
| Total .....   |        | 296               |        |

From these figures he draws the conclusion that "the rapid rise at five years of age coinciding with the commencement of school life, constitutes a very serious indictment of the influence of school life on children predisposed to tuberculosis, for it is very difficult to read any other meaning into them than this that those children who have become infected with tuberculosis during infancy or very early in childhood, as Hamburger contends, is frequently the case, but who have been able to resist the attack as long as they are running about in the open air, break down when the time comes for them to spend a large part of each day in stuffy and overcrowded class-rooms, with, as is frequently the case, very imperfect ventilation."

His cases like our own were all diagnosed clinically, dullness in the lung being present in every case. Among other signs he finds an "inadequate increase in weight," to be present in the majority of cases. He claims "it is highly probable that defective nutrition is the first visible sign of tuberculous infection, the evidence of the circulation of the tubercular toxin, before any clinical manifestations recognizable as such are evident in the lungs." Thus, while, according to Fraser, the actual primary focus is probably in the broncho-tracheal or peribronchial glands and is too deep to be clinically "recognizable" it is evident that when we are finding a so-called primary focus in an apex or other part of the lung, we are referring to a focus that is recognizable clinically, but which is actually a secondary involvement. This will explain the discrepancy in the figures of various observers, for while the clinical can often only discover this later condition, the Roengenologist or the Pathologist can base his figures upon the real primary lesion in the glands, and the tuberculin test will also give information with regard to the earliest lesion.

Then the relation of the human to the bovine bacillus in these cases in childhood is very important if preventive meas-

ures are to be applied. There seems to be little doubt to-day that the ordinary case of pulmonary involvement is usually due to the human type of bacillus and is usually acquired by inhalation. With regard to the bovine bacillus, Dr. Phillip Mitchell's figures are very interesting. He examined a series of cases in Edinburgh where infected cattle seem to be especially common, and found that of 72 cervical gland cases 65 were due to bovine infection and 7 to human. He also found that of 70 bone and joint cases 41 were bovine, 26 human and 3 were both bovine and human infection. In conclusion, he says, "Thus it would seem that surgical tuberculosis is usually due to bovine infection. The majority of the children were bottle fed, and no sterilization of the milk was attempted, while the supervision of the dairies was utterly inadequate."

With regard to the prognosis of these cases of childhood infection the claims of Clive Reviere are interesting, whether we agree with them in entirety or not. He claims 'there is no reason to doubt that tuberculous lesions in children, even where slight and harmless, yet lead to protection against further infection, and that it is well known that if a child under two years of age with no acquired immunity develops a gross infection, this is likely to prove fatal, while the curability of phthisis at the age of 7 to 10 years has been repeatedly remarked upon.' Reviere also claims that the bovine bacillus, while much less virulent to man than the human, can also afford protection, and cites the Edinburgh figures of Dr. Phillip Mitchell to show the rarity of phthisis in association with surgical tuberculosis.

In the treatment of these children we must depend upon fresh air, good food and rest. With regard to food I am convinced that in many cases the teeth that chew the food are far more to blame than either improper or insufficient food. But I want to refer especially to the one factor of rest, for in extolling the virtues of fresh air and food I feel that the majority of men forget to give proper due to a far more important factor. It has been our experience in the treatment of cases, all with active trouble, that the nervous, restless or talkative child requires far more time in which to effect a complete cure than the naturally quiet child. Even as a preventive measure, rest is not fully appreciated, for I am sure that if in the home the sense of fatigue were taken as a warning of lowered resistance, many children, by being made to live more regularly, and to take more rest, would be saved the lighting up of trouble that

may lead to death or may make a long period of treatment necessary.

This brings us again to the relation of the child to the school, and surely if so high a percentage of children are tuberculous before they leave the school as even the lowest figures quoted show, and surely if the school can be shown to be a factor in the further development of the disease in childhood already infected, there must be room for improvement in present conditions if education really aims at having the child develop into an efficient adult.

The trouble with the schools from the view-point of the tuberculous child is that while they are excellent for the normal child they take no account of the weakling, the diseased child, who most needs education. The pace that the weak or diseased child must attempt to maintain cannot but add to over-fatigue, which results in lowered resistance and extension of trouble. The cure for this can only be in the school laying a little more stress upon the physical and a little less upon the mental training of the child, for the present system is still too much a matter of the survival of the fittest.

Such a change would make necessary the medical examination of school children, for the fitness of each child for work would have to be known. To-day when a child with active trouble is found it should, by all means, be transferred to the Sanatorium or Preventorium for special treatment, for it must be realized that while a healed tuberculous lesion in a child may lend to some immunity to future attacks, yet an active lesion is a source of danger that will remain waiting for the first lowering of resistance, and if still present at adolescence it becomes a more serious menace. With more education of the masses in right living, and in the maintenance of our bodies in a condition of good resistance against infection the danger would be greatly decreased, but I cannot see where the infected school child of to-day has a fair chance when the school is neglecting the physical side of the child to so great an extent, and where the majority of parents are so ignorant of the physical needs of either children or adults. It needs a new generation of adults that have been properly trained as children before proper results can be obtained. Dr. Philip has well expressed it when he says, "The problem can only be solved efficiently by a better understanding of the physiological needs of developing life, and a corresponding renovation of the nurseries and the school rooms of the nation. It is folly to dream of transferring all tuberculous children to preventoria or sana-



toria. This plan is to plead ignorance of the essential needs of the problem. The home of the poor man must be made the nursery of healthy children, and cease to be the breeding ground of tubercle-tainted wastrels. Each recreated home is an effective preventorium against tuberculosis."

But while these new measures, having to do with the care of the child, are needed, I would not have you think that we are wrong to care for the adult as we do to-day. The one should be done, but the other should not be left undone. Or we might say, the stable door should be locked before more horses are stolen. The prevention of infection must ever be the chief measure in the stamping out of tuberculosis, the only trouble being that in the past it has not been realized that the infection is usually handed down from adult to child, instead of from adult to adult.

In conclusion, I hope I have convinced you:

- First*, that the child is far more easily infected than the adult, and that the majority of cases of tuberculosis in adults had their beginning during or even previous to school years;
- Second*, that the success of all Anti-tuberculosis work depends more upon the protection of children than of adults;
- Third*, that active trouble in a child requires treatment, for a healed lesion in a child may lend immunity, but an active lesion is always a possible source of danger;
- Fourth*, that if education means efficiency the physical condition of these children must be discovered by a medical examiner, and the school training must be suited to the physical, quite as much as the mental needs of the child.

## Selected Articles

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### THE HYGIENE OF THE NOSE AND THROAT

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PHILIP A. HARRY, M.D., D.P.H.

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When it is remembered that the great majority of ear, nose, and throat diseases are due to hygienic errors, it is surprising that so little attention is paid in the text-books to the hygiene of these regions. Its importance cannot be too strongly emphasized, and a thorough appreciation of its necessity will do more than anything else towards the prevention of zymotic diseases and the building up of a perfect physique in the growing individual.

In recent years a great deal has been written and spoken about oral and dental hygiene, and the use of the toothbrush has been introduced into the schools controlled by all progressive Health Departments. All this teaching, although perfectly correct, is nevertheless inefficient so long as the nose, which is the chief avenue for the entrance of infection, is entirely neglected.

The action of the tongue, saliva, and cheek and palate muscles keeps the mouth and teeth clean; these advantages are not shared by the nose, which should therefore be assisted in its endeavor to remove the impurities that it collects from the atmosphere, especially in manufacturing districts. In order to develop the habit, training should commence at a very early period.

The nose is less an organ of smell than an organ of respiration, and in this respect it possesses certain marked features. It is able by modifying the surrounding air to create its own climate; it is sympathetically affected by many conditions, not only of the respiratory system, of which it is a part, but also of other organs.

In asthma a careful examination of the nose will reveal certain areas, the irritation of which will produce an attack. In hay fever the nose is the starting point of the condition; the majority of conjunctival infections, especially those due to the pneumococcus, Koch-Weeks bacillus, and *Micrococcus catarrhalis*, have their origin in the same region; similar remarks apply to diseases of the lachrymal sac.

Antonelli has pointed out that the nose is often the only organ in which a lesion can be detected in some cases of congenital syphilis. Chronic nasal diphtheria is sometimes responsible for the outbreak of serious cases of this disease. Abnormal states, such as constipation, gout, anæmia, etc., are reflected in the nasal mucous membrane. At all ages the nose may be of assistance in diagnosis. In children the presence of a suppurative condition of the mucous membrane will explain the origin of a facial erysipelas, pustular eruptions on the cheek, and eczema of the nostrils and upper lip. The chronic blepharitis following measles can easily be cured if attention is paid to the nose. A small erosion on the interior part of the septum on each side, from which there is occasionally hæmorrhage, is found in anæmic children suffering from congenital gout.

Nasal obstruction with discharge is directly responsible for many local and general deformities of the nose, face, nasopharynx, thorax, etc. Apart from the spread of nasal disease to neighboring parts, such as the air sinuses, larynx, trachea, bronchi, pharynx, Eustachian tubes, etc., the nervous and mental depression from which patients with chronic rhinitis suffer is due to toxæmia from the swallowing of nasal discharge. Gastric and other catarrhs, general malaise, and recurrent attacks of headache arise from the same cause.

The relation of the throat to the nose is closer than by mere continuity of surface; in other words, disease can spread from the nose not only in this manner but also by the lymphatics. The circulation of lymph in the nasal cavity is in two directions, towards the external nose, and towards the pharynx.

That there is a close connection between the tonsils and the nasal mucous membrane was proved by the classical experiment of von Lenhardt, who injected china red into the mucosa over the inferior turbinate of dogs. Some days afterwards the dogs were killed, and a direct line of inert matter was found from the nose to the tonsil of the same side. No less interesting was the fact that some of the pigment was found in the tonsil of the other side.

This confirms what is found clinically: tonsillitis is frequently associated with nasal suppurations, and often occurs after operations on the nose, especially if care has not been taken to clean the nose thoroughly beforehand. Tuberculous conditions of the tonsils are due to organisms conveyed by its lymphatic connection with the nose rather than by continuity of tissue or the blood stream.



The regression of the lymphatics with age permits the conclusion that a maximum danger is offered to the child, because of its ready permeability by infectious matter, as compared with the adult; hence the importance of the early commencement of nasal hygiene. It is more than probable that all the specific fevers, as well as certain tuberculous conditions, are introduced into the system in this way, and could be prevented by careful attention to the nose.

A variety of micro-organisms may be found in the nasal cavities of the healthy individual; they are usually in small numbers and of low virulence. From several causes, such as debility, chills, traumatism, the introduction of an organism that is new to the individual, or of a more virulent strain, insufficient immunization, the increased susceptibility after certain lesions, etc., bacteria previously quiescent or avirulent may become active and give rise to acute infections.

Besides the spread of disease by the lymphatics, that by continuity of surface is equally important; it gives rise to diseases of the air sinuses, including the mastoid cells, and to complications of these conditions, such as orbital and brain abscesses, sinus thromboses, etc. The immediate result of nasal suppuration and obstruction is mouth breathing, which is in its turn followed by numerous conditions, for example, dental caries, pyorrhœa alveolaris, laryngeal spasm, nocturnal enuresis, epileptiform convulsions, night terrors, headache, squint, etc. Remote local results are the different forms of rhinitis, enlargements of the anterior and posterior ends of the turbinates, ozæna, polypi, etc.

It will therefore be seen that a great number of diseases would be favorably influenced and even entirely prevented by the observance of a proper nasal hygiene. A great proportion of the school medical officer's work is due to its absence; it will be noticed in any report of the medical inspection of school children that at least one-third of the defects discovered during routine examination come under this category. To attain the best results health officers will have to combine with oral and dental hygiene the teaching of nasal hygiene: the nose spray should be considered of equal importance with the toothbrush. The occurrence of adenoids and enlarged tonsils would be prevented, except in susceptible cases, such as the children of gouty parents; even in these an early commencement and removal to a suitable climate would produce satisfactory results. In such circumstances the operation for removal of tonsils would be uncalled for.

As early as possible, even before the age of two, the child must be taught how to blow the nose, by occluding one nostril and expelling air through the other. This should be done at a regular time once or twice daily, and should be followed by the sniffing up of an ounce of lotion, such as glycerinum thymolis comp., B.P.C., one part, normal saline solution nine parts. The lotion may be sniffed up from a nose bath or a saucer, several deep breaths being afterwards taken through the nose. This routine should be carefully carried out, and should invariably precede attention to the mouth and teeth. During epidemics, and after exposure to infection, treatment should be more frequent.

In older children and in adults an oily spray, applied by means of an atomizer, gives the best results. The solution may be any of the oily nebulæ to be found in the British Pharmaceutical Codex, and may contain menthol, chlorbutol, eucalyptus, oil, etc., in varying proportions, in a basis of pure, light gravity, liquid paraffin.

The spraying should be preceded by careful blowing of the nose, and followed by breathing exercises. A good atomizer should be used; cheap varieties are not to be recommended, as they soon get out of order and give trouble. There are many good nebulizers on the market.

Adults employed in dusty occupations, in large manufacturing districts, should be advised to combine the spray with the nose douche. Whenever there is an increase of nasal discharge, a large quantity of fluid should be used, the atomizer then being used as a douche. The lotion should be lukewarm. Before syringing, the patient should occlude first one, then the other nostril, and gently blow through the unoccluded one. The lotion should always be directed into the most obstructed side, only sufficient force being used to cause it to return by the opposite side; if this is done, there is no risk of raising the pressure in the post-nasal space, and forcing lotion into the middle ear. The head should be bent forward over a basin, and the patient instructed to breathe quickly and loudly in and out through the mouth, thus causing the nasal cavity to be shut off, by the drawing up of the soft palate. If this advice is ignored, the lotion will pass down into the pharynx and larynx, causing choking and vomiting. The fluid should be injected along the floor of the nose, that is towards the root of the neck, and not upwards towards the top of the head. If the douche is given in the latter direction it will give rise to severe headache, or by being forced into one of the nasal accessory sinuses, may set

up an acute inflammation. Antiseptics such as hydrogen peroxide, potassium permanganate, formaldehyde, iodine, etc., may be added to the lotion in suitable cases. After the syringing or douching, the patient should never blow the nose; he should allow all the fluid to drain away by gravity, and not by forcible expulsion.

While the greatest stress is laid on nasal hygiene, the nose being the channel of entrance for micro-organisms, the care of the throat is of equal importance, especially in the case of adults. The great majority of pharyngeal and laryngeal conditions depend on the presence of pathological states in the nose and naso-pharynx, or the habit of mouth breathing. The acute cases are due to extension of disease from the nose, or occur during the course of acute fevers. Chronic cases arise from the result of repeated attacks of acute inflammation, and are kept up by gout, faulty use of the voice, or the abuse of tobacco, alcohol, etc. In every case of inflammation, as well as syphilis, tubercle, and other infections, the use of the spray is absolutely necessary. The atomizer, owing to the facility with which it sprays in different directions, will be found useful. The spraying of the throat should be carried out at least three times daily. A one per cent. solution of menthol, camphor, or thymol in liquid paraffin produces the best results. In those cases where the causative agent is a pathological condition, in the nose or naso-pharynx, an alkaline nasal douche should be used as well, once or twice daily. The use of an atomizer, especially during the winter months, would prevent the onset of throat complications, even in susceptible patients. A part of the routine treatment of all catarrhal subjects should consist in the prescribing of a good nasal atomizer for constant use; they soon learn to appreciate its value, and the comfort and benefit derived from its use far outweighs the time and trouble required.—*The Prescriber*.



## CLINICAL LECTURE ON JAUNDICE

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Jaundice is the classical example of a striking symptom of varying significance. At the outset it will be well to consider the natural history of the bile pigment, so as to appreciate more fully the effects of a departure from the normal course of events.

In all probability the red corpuscles are ordinarily broken down in the liver. Hæmatoporphyrin which is isomeric with bilirubin, is set free from the hæmoglobin molecule. The bile pigments, bilirubin and the more oxidized biliverdin, on leaving the liver, are stored up for a varying time in the gall bladder and are then discharged by the common bile duct into the intestine. In the intestine the bile pigments are reduced by bacterial action to stercobilin, the normal colouring matter of the fæces. A certain amount of this is reabsorbed by the intestinal vessels and is excreted by the kidney as urobilin. Urobilin is not the chief pigment of the urine, which is urochrome, and most of the urobilin normally is further reduced to a chromogen. If urobilin is excreted as such it means either that (1) the destruction of red corpuscles is excessive, or (2) an excessive time is given for reabsorption, as in intestinal obstruction, or (3) there is excessive reduction owing to an abnormal amount of intestinal putrefaction. If no bile pigment enters the intestine there can be no urobilin in the urine, and there is no satisfactory ground for stating, as is sometimes done, that urobilin in the urine is evidence of the existence of gallstones in the biliary passages.

### OBSTRUCTIVE JAUNDICE.

In all forms of jaundice, except one, jaundice is due to obstruction somewhere in the biliary passages. Sometimes the obstruction is gross and obvious, affecting the main ducts; sometimes it is not obvious, and can only be demonstrated microscopically as catarrh of the smaller ducts. In the former group the obstruction may be within the lumen of the common duct (mucus from catarrh, gallstones, parasites), or in the walls of the duct (stricture, congenital atresia, new growth), or pressure on the duct from without (new growth in the head of the

pancreas or in the lymphatic glands in the portal fissure). It is important to observe that stones in the cystic duct do not cause jaundice, but the gall bladder becomes distended with clear mucoid fluid. Gallstones in the common duct, on the other hand, cause jaundice, but do not dilate the gall bladder. So that if there is jaundice with an enlarged gall bladder, gallstones ought not to be diagnosed, unless there is evidence of one stone impacted in the cystic and another in the common duct, a condition which must be very rare. Courvoisier long ago laid down the rule that if the common duct is obstructed by a gallstone the gall bladder does not enlarge, but if obstructed by something else, it does. We are now in a position to understand the reason for this. In the first place, gallstones do not usually produce so complete an obstruction that no bile can leak past the obstruction. A clay-colored stool may contain stercobilin, though excess of fat in the stool may completely obscure that fact. Nevertheless, extraction of the stool with acid alcohol, or amyl alcohol, may show the presence of stercobilin, which may be recognized by the spectroscope or by the brilliant green fluorescence which it gives with zinc chloride and ammonia. In the second place, gallstones are associated with a pre-existing cholecystitis, and this may lead to so much thickening of the gall bladder with surrounding adhesions around that it cannot enlarge.

On the other hand, a new growth in the head of the pancreas usually obstructs the common duct so completely that no stercobilin can be extracted from the stools, while the gall bladder, not having been the seat of previous disease, can enlarge. The occurrence of painless, persistent and completely obstructive jaundice in an elderly person should raise the suspicion of new growth of the pancreas, particularly if the gall bladder enlarges. It is worth while noting also that in this condition the liver is seldom greatly enlarged by metastatic deposits as so commonly occurs in new growth of the rectum, stomach or elsewhere in the abdomen, although there may be a slight general plumpness of the liver from distension of the intrahepatic ducts with bile which cannot escape into the intestines.

The cases of jaundice without obvious obstruction gave rise to much controversy in the past. It was known that the hæmatoidin of old blood clots was chemically identical with bilirubin, and that any drug that broke down red corpuscles caused jaundice. The conclusion was naturally drawn that jaundice was hæmatogenous. But then it was found that if the liver were excluded from the circulation before the hæmolytic drug was

injected, hæmoglobinuria resulted, instead of jaundice. Further observations showed that all the hæmolytic drugs also excited a catarrh of the smaller bile ducts, a descending cholangitis obstructing them and leading to resorption of bile into the general circulation. Jaundice of toxæmic origin, such as occurs in phosphorus poisoning, yellow fever and acute yellow atrophy of the liver, is similarly explained.

#### ACHOLURIC JAUNDICE.

But soon after the theory that jaundice was always obstructive in origin seemed firmly established, a group of cases was recognized to which the discarded term "hæmatogenous" would fairly apply. To this group the name of "congenital family cholæmia," or "acholuric jaundice" has been given. As the condition is a rare one, I need only say here that the patient may be born jaundiced or become so soon after birth. Jaundice persists with little or no variation for many years. Bile pigment is present in the serum and in the stools, while it is absent from the urine. The spleen is always enlarged, and there is considerable anæmia. Yet the patient has good or fair health and shows normal resistance to intercurrent diseases. The condition tends to appear in more than one member of the family, and in successive generations. The most striking pathological feature is the undue fragility of the red corpuscles, which are hæmolyzed by a dilute salt solution, which has no effect on ordinary corpuscles. We may conclude that there is a chronic hæmolysis of unduly fragile corpuscles occurring so slowly that it does not excite catarrhal cholangitis but leading to pigmentation of the serum and tissues just like the yellow staining in old blood clots. It is not known how this pigment escapes from the body without affecting the urine.

#### THE RESULTS OF OBSTRUCTIVE JAUNDICE.

We may next consider the effect on the body of the alterations in the course of the bile which follows an obstruction to the small intrahepatic ducts or the common bile duct.

Within two hours of the occurrence of an obstruction, the bile reaches the blood stream by way of the lymphatics and the thoracic duct. This is much sooner than it appears in the conjunctiva or skin. Bile salts *in vitro* are marked by hæmolytic due to their solvent action on the fatty substances of the red corpuscles. And the serum of a jaundiced patient will readily hæmolyse foreign corpuscles so that it may be impos-



sible to carry out Wassermann's test because hæmolysis occurs in all the tubes. Yet jaundice is not typically accompanied by secondary anaemia, for the patient's own red corpuscles acquire a heightened resistance to bile salts, which increases with the intensity of the jaundice. Herein it differs from acholuric family jaundice. Anaemia may, of course, result from the cause of the jaundice as in malignant disease of the liver, but it is not produced by the jaundice. One definite result of bile passing into the blood is slowing of the pulse. High tension usually accompanies a slow pulse, but, in the bradycardia of jaundice, the pressure is low and the pulse dicrotic. High tension stimulates the cardio-inhibitory centre in the medulla, and thus slows the heart through the vagus, but bile salts have a directly depressing effect upon the heart. Hence, the slow pulse with low blood-pressure. The action can easily be demonstrated by applying a 1 per cent. solution of bile salts to the isolated heart of a frog.

Bile pigment appears in the urine soon after its appearance in the blood serum, and before it can be detected in the conjunctiva. Naturally, as jaundice clears up, the pigment disappears from the urine last. The best test is Gmelin's, the play of colors obtained on addition of fuming nitric acid, green being the most important tint to look for. Rosenbach's modification of dipping filter paper into the urine, and then placing the acid on the paper is the easiest way of doing the test. The green color given on pouring tincture of iodine on to the surface of the urine is not so sensitive a test. Bile salts may be found in the urine even before bile pigment. The only test of any value is Matthew Hay's. Flowers of sulphur poured on to the urine sink if bile salts are present, owing to reduction of surface tension. No other test is sensitive enough to recognize the small quantity of bile salt which may be found in urine. But the majority of cases of jaundice do not show any bile salts in the urine. It might be thought that, from their presence or absence, we could draw some conclusion as to the cause of the jaundice, but unfortunately this is not the case. The bile salts which normally enter the bowel are reabsorbed and used over again several times. Copeman's observations on biliary fistulae show that soon after the fistula has been established the salts in the bile fall to one-tenth of the normal amount, since reabsorption cannot occur now. This suggests that bile salts are secreted and reabsorbed approximately ten times under normal conditions.

Bile is partly an excretion, partly a secretion. The bile pigments, the mucin and the cholesterol, are excretory in character, while the bile salts have a secretory value. This combination of an excretion which has to be continuous with a secretion which is only required during digestion is effected by the gall bladder. The clay-colored stool of jaundice, as already explained, may contain some bile pigment, but the return of normal pigment to the stool is evidence of the cessation of obstruction to the bile duct. Bile precipitates undigested protein and, in some way, accelerates the digestion of starch. But its main digestive value is in connection with the fats. Bile salts permit of closer contact between the watery digestive juices and oily fluids by lowering surface tension, while lecithin and cholesterol help to dissolve fatty acids and soaps, including the otherwise insoluble calcium and magnesium salts. Even in acid media the action continues because the bile acids, which are now set free, can dissolve fatty acids. Bile salts also play an important part in promoting the absorption of fat by lowering surface tension. We can therefore determine in a case of fatty stools whether the pancreatic juice or the bile is at fault. In normal faeces, the saponified and unsaponified fats are approximately equal in amount. Pancreatic juice effects the splitting of fats which must precede saponification, so that, if the excess of fat is due to a pancreatic defect, neutral or unsaponified fat will be in excess of the split fat. On the other hand, bile salts provide for the absorption of the fat already digested by the pancreatic juice, so that, when the excess of fat in the stools is due to loss of bile, the split fats will be in excess because they cannot be adequately absorbed.

It is due to this difficulty in absorption of fat that jaundice is so commonly associated with wasting even when the jaundice is not due to a wasting disease like carcinoma. Theoretically, it should be possible to correct this by liberal diet of proteins and carbohydrates which can be digested and absorbed in the absence of bile. Practically, however, the reflex digestive disturbances which so frequently accompany jaundice make this difficult and consequently the patient is compelled to consume his tissue fat.

Bile is a natural laxative, as the bile salts stimulate peristalsis. Jaundice is, therefore, apt to be accompanied by constipation. It is claimed that bile is antiseptic in its action, and it is certain that, in its absence from the bowel, there is excessive putrefaction as evinced by the rise in the ethereal sulphates of the urine. But, though free bile acids are antiseptic, bile



salts are not; one has only to keep some bile for a few days to realize that it cannot keep itself from putrefying, and so can hardly be an efficient antiseptic for other substances. The explanation is that, in the absence of bile salts, the fats are absorbed so badly that they coat over the proteins, which therefore undergo excessive bacterial decomposition instead of being quickly assimilated. But the peculiar odour of the stools in jaundice is largely due to the higher fatty acids.

Hyperchlorhydria is a common accompaniment of jaundice. If the jaundice is secondary to a gastro-duodenal catarrh, however, this is not present, as catarrhal gastritis diminishes the secretion of hydrochloric acid. Probably the hyperchlorhydria is usually caused by delay in the escape of the gastric contents, the pyloric sphincter undergoing a protective spasm. The hyperchlorhydria is, therefore, likely to be most obvious in jaundice associated with pain as in gall-stones or with pancreatic disease where there is inadequate neutralisation of the hydrochloric acid of the gastric juice by the alkaline pancreatic juice.

I believe that we have here an explanation of the success which followed treatment of gall-stones by olive oil. It was formerly thought that olive oil would dissolve gall-stones. It is true that a gall-stone placed in olive oil will crumble, but it is not obvious how olive oil could ascend the bile duct. Further, it was urged that patients passed fatty concretions after this treatment, but so would anyone on such large doses of olive oil. For these concretions are nothing more nor less than calcium and magnesium soaps formed by it in the bowel. But one generally finds that a treatment which has had a large vogue has some empirically sound basis, even though the reasons for its advocacy may have been incorrect. Olive oil probably diminished the discomfort of patients with gall-stones, because it reflexly inhibited the secretion of gastric juice and thus checked hyperchlorhydria. But we can do this in other ways which will not have the fattening effect of the oil—an effect which is undesirable in the subjects of gall-stones, who are so frequently stout.

Soon after the bile has ceased to enter the intestine properly and has entered the urine, some of it will reach the conjunctiva and then the skin. It is well known that the lemon tint of pernicious anæmia can be readily distinguished from slight jaundice by the fact that the conjunctiva is not yellow, but pearly white. In chronic jaundice, flat nodules of xanthelasma are not uncommon, and telangiectases are apt to form. Pruritus is a most troublesome symptom, but it is inconstant; it bears no definite relation to the duration or severity of the jaundice.



It is to the bile salts in the circulation that pruritus is to be attributed. The patient indulges in much scratching, but without relief, for, as he often says, the itching is *beneath* the skin.

Various statements have been made about the different secretions being stained in jaundice. I believe the truth is that normal secretions are never stained by bile, but that inflammatory and passive exudates are invariably bile-stained. Thus, if mastitis occurs in jaundice, the milk will be colored with bile. Nasal and bronchial mucus is not tinged with bile, but, if pneumonia occurs as a complication, bile at once appears in the sputum. Again, should œdema of the lungs ensue, the sputum becomes bile-stained. In jaundice without pneumonia then, the occurrence of bile-stained sputum is of serious import, being evidence of heart failure. Fluid in the pleural or abdominal cavity being either the result of inflammation or of passive exudation will, accordingly, be colored by bile in a jaundiced patient.

A mild degree of poisoning of the nervous system by bile salts is common in jaundice, causing headache and depression. Bile pigments and bile salts are generally found in the cerebrospinal fluid removed by lumbar puncture. Any severe toxæmic jaundice will be accompanied by marked nervous symptoms—headache, delirium and ultimately coma. But this is due to the hepatic inadequacy caused by the action of toxins on the liver, and not to the jaundice. Indeed bile salts are probably not produced in this condition, the liver being too damaged to elaborate them.

It will be observed that, apart from an unpleasant but harmless discoloration produced by bile pigments, all the important symptoms in jaundice are due to bile salts. Their absence from the intestine causes steatorrhœa and wasting, from deficient absorption of fats, increased intestinal putrefaction and constipation. Their presence in the blood causes bradycardia, headache, depression and pruritus.

#### TREATMENT.

It is clear that a symptom depending on so many different causes cannot be treated without reference to the cause in each case. Nevertheless it is true that certain general rules are common to all cases of jaundice. Milk is usually recommended as the mainstay in diet, but owing to its comparative richness in fat, it is not really suitable and is often much disliked by the patient. I prefer to give barley water flavored with lemon, with the addition of the white of an egg and a teaspoonful of

somatose or plasmon to each half pint. Tea is usually forbidden, but it is difficult to see on what grounds. Jaundiced patients often crave for it, and, if made in the Russian fashion, without milk but with a slice of lemon, it seems free from objection. If the practitioner feels reluctant to abandon milk, it should be separated or thoroughly skimmed to get rid of as much fat as possible, and then a grain of sodium citrate to each ounce of milk to diminish curdling. Benger's food, calves' foot jelly and lemon sponge are pleasant and can usually be taken without difficulty. One advantage of gelatine is that it does not contain the groups which give rise to putrefactive bodies. Water should be drunk freely to prevent inspissation of the bile. Patients do not care to be told to drink water from the tap, preferring, as of old, the waters of Abana and Pharpar. It is well, therefore, to select a spring which is alkaline, such as Vichy, St. Galmier or Evian.

For the vomiting at the onset of catarrhal jaundice, I think there are few things better than  $\frac{1}{2}$  grain doses of calomel every hour until 3 grains have been taken. It acts as an aperient, an antiseptic and an indirect cholagogue. Indeed, nearly all cholagogues are indirect, acting as stimulants to the bowel, and therefore to the adjacent bile passages. The only direct cholagogues are salicylates, bile salts and secretin. The last is not absorbed from the bowel, but has to be manufactured within the intestinal mucosa. Bile salts should not be given as long as an obstruction to the bile ducts exists, or they will increase the discomfort which their presence in the circulation is already producing. Salicylates, on the other hand, are useful as a diluent of bile. They may be combined with alkalis which help to dissolve any mucus at the orifice of the common bile duct. When gall-stones are present I have found the addition of ten minims of tincture of belladonna very useful, as it dilates the bile ducts and facilitates the onward passage of the stone. The mixture should be given every four hours.

For the relief of pruritus I have found nothing so good as thyroid extract. It apparently diminishes the production of bile salts by the liver. The converse has been assumed, i.e., that bile salts diminish the secretion of the thyroid gland, but there is no proof of this antagonism. On this view bile salts have been given subcutaneously in the treatment of Graves' disease. That bile salts can slow the pulse and thereby relieve one symptom of Graves' disease we know, but they do this by depressing the heart, which is undesirable. One preparation used for this purpose, Paratoxin by name, seems capricious in its

action, even in this respect, and altogether the treatment is passing out of favour. For the reasons already stated local applications are usually ineffective for the relief of pruritus. A lotion of a drachm of creolin and an ounce of glycerine made up of ten ounces with water may be tried, or an ointment consisting of 20 grains of camphor and 30 grains of menthol in an ounce of vaseline.

In conclusion, except in the acholuric type, jaundice is always obstructive, though the obstruction may only involve the small intrahepatic bile ducts. We have traced the effect on the body of the altered course of the bile which follows such obstruction, and have laid down certain general principles of treatment common in all cases of jaundice. Treatment, however, can only be complete and satisfactory when the cause of the jaundice has been determined.—*The Medical Press.*



## Reports of Societies

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### REPORT OF THE LIBRARY COMMITTEE—ACADEMY OF MEDICINE, TORONTO

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BY JOHN FERGUSON, M.A., M.D.

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That celebrated writer, critic, and humorist, Sydney Smith, tells us that "No furniture is so charming as books, even if you never open them, or read a single word." John Stuart Blackie, the eminent professor of Greek, in the University of Edinburgh, oftentimes told his students "Next to coming into personal contact with great men was to become acquainted with their writings." He also would say to his class, "Go to the originals; in mathematics read Newton, in philosophy study Leibnitz, in science pass not by Faraday, in politics give due attention to Aristotle, and in poetry remember your Shakespeare." So in our own profession, we should betake ourselves as often as we can to the pages of Hippocrates, Galen, Vesalius, Morgagni, Harvey, Laennec, Trousseau, Hunter, Lister, and Jenner.

Thomas Carlyle, the sage of Chelsea, and the polyhistor, tells us in his "Heroes and Hero Worship," "Certainly the Art of Writing is the most miraculous of all things man has devised. Books, written books, are miraculous! In books lies the soul of the whole Past Time, the articulate, audible voice of the Past, when the body and material substance of it has altogether vanished like a dream. All that mankind has done, thought, gained or been, is lying in magic preservation in the pages of books. They are the chosen possession of men."

Ralph Waldo Emerson, in his essay on books, has these words: "Books are the majestic expression of the universal science. But they are for the closet and to be read on the bended knee. Their communications are not to be given or taken with the lips and the end of the tongue, but out of the glow of the cheek and with the throbbing heart."

Our books show us the pilgrimage of the medical profession. It was a long cry from the simple surgery of Hippocrates to the full golden fruit of Lister; and yet, there had to be a Hippocrates, there had to be a forerunner before Lister came.

The code of Hammurabi is but a dim vision of medicine compared with the writings of a Trousseau or a Watson; but the world of medicine would be vastly the poorer for the loss of the ancient Babylonian Code. Had not Morgagni lived and taught, Hunter would have been compelled to begin at a much more primitive stage of investigation than he did. Thus it is that we are here to-day with our shelves well laden with the logoi of the medical profession—the Ikmas phrontidos of the descendants of Aesculapius. We are doing well, and those who come after us will say in the fullness of their hearts of our work, “They builded better than they thought.” As the Academia was dear to the Greek, let our Academy be dear to us; and should any one ask what are you doing, it will be the proud boast of us all to reply in the words of the Epitaph over the grave of Sir Christopher Wren, who reared St. Paul’s Cathedral, *Si monumentum requiris, circumspice*. Yes, we can say, the monument of our work lies around us, open to the gaze of all.

At our annual meeting a year ago, it was suggested that the Academy should commence making a collection of the photographs of the Fellows, together with some information regarding each Fellow. A start has been made. The plan consists of two albums, one of which shall be used for the photographs of deceased Fellows, and the other for those who are still living. From the latter, photographs shall be transferred to the former when death occurs. In each case the name will accompany the photograph. There shall also be a filing volume in which shall be kept information regarding each Fellow, as to age, official positions, contributions to medical and general literature, and work done in behalf of the Academy. It is expected that each Fellow shall furnish the essential facts about himself. From this data along with other material shall be prepared a brief biography to be inserted after each Fellow’s death, in a loose leaf volume kept for the purpose, in which the names shall appear in alphabetical order.

An encouraging feature of our work is the growing disposition to make gifts of reading matter to our library, a disposition which the Committee has studiously tried to foster. It has now become recognized that there is a great and ever-growing accumulation of books and journals under the control and custody of the Academy; and there are many who now feel that such a library is worthy of their support, and a fit place in which to place their books and journals for safe-keeping, and for the good of others. This spirit has now taken root, and

may *velut arbor crescat* be our prayer. Respice, aspice, prospice, looking backwards, looking around, looking forward, must be our watchwords. Carlyle has well said that "The goal of yesterday will be the starting point of to-morrow"; and so, in the discharge of our various tasks, we can say, with Goethe, "It's thus at the roaring loom of time we ply." As we look around at our collection of books, we can find no more fitting words than the following, from the same great writer:

" Heard are the voices,  
Heard are the sages,  
The world and the ages;  
Here is all fullness;  
Work and despair not."

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### Surgical Suggestions

Patients suffering with sciatica should be examined carefully for a possible lesion of the pelvic bones, the vertebræ or the spinal cord itself.

Simple retroposition of the uterus is quite normal to many women and should not be "corrected" without clear indications.

It is not reasonable to believe that a retroposed uterus by its mere weight upon the bowel can cause constipation.

Among the diagnostic possibilities of a flattened or rounded mass in the midline of the abdomen it is worth remembering fused or horseshoe kidney. The diagnosis can be established by pyelography.

The occurrence of dermoids in the midline of the perineum is too often forgotten. Situated at the anterior anal margin a dermoid cyst may be mistaken for a hemorrhoid, or if discharging through a sinus, for an ordinary "fistula in ano." Situated more anteriorly the sinus is often mistaken for a urethral fistula.

A strong solution of potassium permanganate painted over macerated, sodden skin surfaces, as between the toes or about the anus, and allowed to dry, gives much relief and often effects a cure. The application may be made daily or less frequently. Keep the painted surface dry with talcum powder and absorbent cotton.



## Editorials.

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### THE ONTARIO MEDICAL ASSOCIATION

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In his presidential address Dr. Gibb Wishart gave hearty thanks on behalf of the Association to Dr. Cameron, Dr. Sutton, and other members of the Peterborough Medical Society for their hard, resolute and unfailing labor in making their preparations for the meeting of the Ontario Medical Association, May 26-7-8. This was the second meeting held in one of the "smaller centres". The first of these was held at Niagara Falls under the Presidency of Dr. Casgrain in 1911. We presume that Dr. Gibb Wishart was not at the meeting of 1911. We cannot think that any one who attended the Niagara meeting will ever forget it. We are much inclined to bracket these two meetings because they were alike in many respects; both were very interesting and exceedingly pleasant.

Peterborough has only twenty-two doctors, and of these three, namely, Drs. Young, Frederick and McPherson, were away at the front. We understand that the work of preparation was done by 18 men. We were glad to learn that the citizens of Peterborough took a great interest in the meeting, and the Town Council gave the Local Committee on Arrangements \$250.00 to assist in the entertainment to the visitors.

The Committee on Papers and Business had a peculiarly difficult task because many who had promised papers were either at the front or on the way to the front at the time of the meeting. There is no doubt about the fact that it is exceedingly difficult to have a successful medical meeting during these war

times. As we have before announced the Local Committee of Vancouver for the Dominion Association meeting, after working for many months, were very reluctantly compelled to call their meeting off. The Canadian Public Health Association was unable to hold its meeting at Port Arthur last September, and it is reported now that no effort will be made to hold the meeting of that body before the termination of the war.

There were present at the Peterborough meeting 176 doctors. Of these 52 were from Toronto and 18 from Peterborough. We should like to ask in this connection if the officers of the Association neglected to send notices of the meeting to such cities as Ottawa, Kingston, Belleville, Hamilton and London. We are sorry to state that the receipts at the meeting did not cover the expenses. The average cost of a meeting is something over \$550. At this meeting 78 associate members paid their fees of \$2 each, making \$156. We understand that \$200 will be forthcoming from the Dominion Association, making altogether \$356, or a little more than \$100 below "expenses." This might be considered an argument against holding meetings in what are known as "small centres." For instance we are told that there were 363 doctors present in 1913 and 286 in 1914, both meetings being held in Toronto. It is not fair, however, to conclude through such comparison that Peterborough is not a good place to hold a meeting. When we consider the large number of active physicians in Ontario who were engaged in military work, we can readily understand the main cause of the small attendance. We believe we know something about Toronto and hold the opinion that under ordinary circumstances that city would have sent 100 instead of 52. It is fairly safe to con-

clude that under ordinary circumstances the doctors present at Peterborough this year would have been greater than those attending the meeting last year.

On Wednesday, May 26th, there was a steamboat trip to Peterborough's great lift locks. The two steamboats which were well filled with passengers should have gone down the river. Unfortunately, however, the weather was very cold, and the passengers were brought back to the city, and asked to go to the Armouries for refreshments and a short "smoker concert." On Thursday, the 27th, the members were taken for an automobile ride.

On the evening of the 27th, the President, Dr. Wishart, and Mrs. Wishart held a reception, which was a very pleasant affair indeed; good music was provided, refreshments were served, and a happy evening was spent. It reminded us very much of that other reception held at Niagara Falls meeting. We are glad to be able to say that the election of Dr. H. B. Anderson to the Presidency for the coming year was universally approved.

We cannot close these running comments on the meeting without stating that the presence of Dr. Francis J. Sheppard, of Montreal, gave great pleasure to all members present, and his very interesting and instructive address on Surgery was exceedingly well received. Would it not be possible to get more of our friends from Montreal to attend our Provincial meetings. Years ago we had many visitors from Montreal. Why so few now? We have been talking for years of having a meeting in Ottawa. Why not go there as soon as possible? When we do that we will of course ask the physicians from Montreal and also other places in Quebec to join us in full force.



### ONTARIO HEALTH OFFICERS

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The Fourth Annual Conference of the Ontario Health Officers Association at Peterborough, May 25-26, was probably the best and most interesting meeting up to the present time. It would appear that the suggestion of Dr. McGillivray last year that the two Associations, the Health Officers and the Ontario, should hold their meetings during the same week was an excellent one, and its adoption has been followed by excellent results. The President of the Association, Dr. W. R. Hall, of Chatham, was an excellent presiding officer, and delivered an interesting and able address. There was a general consensus of opinion that the papers read were brimful of common sense. Another interesting feature was what is called the question drawer, which became very popular a couple of years ago. On programme we found answers by Dr. John Amyot and Dr. J. W. S. McCullough. The members present were perfectly satisfied with Dr. McCullough's answers, but all regretted the absence of Dr. John Amyot. However, as we have mentioned in a former issue, he is doing good work at the front, and we desire to leave him there as long as he is needed.

We look forward to a great future for this young Association. We believe that before long it will be the strongest and most useful medical organization in Canada. It practically touches nothing but preventive medicine, and that is recognized at the present time, fortunately, as the all important thing in the interests of the public.

We hope to be able to give in our next issue a somewhat extended report of this meeting. We may say now, however, that the next meeting will be held

in Toronto under the Presidency of Dr. McPherson, M.O.H., of Peterborough, who is now at the front. We are very glad indeed that the honour was conferred upon Dr. McPherson, notwithstanding the fact that there was of course doubt as to whether he would be able to attend the next meeting. For many reasons, however, we all hope he will.

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### **The Treatment of Scurvy**

It is hard for those of this generation to understand the seriousness of scurvy, as it existed up to nearly the end of the eighteenth century. In speaking of one of the wars in the middle of that century, Dr. Lynd stated that scurvy alone cut off more valuable lives than the united efforts of French and Spanish armies. So terrible were the ravages of scurvy that again and again it crippled our fleets and threatened to undermine our sea power. It is state that a remedy for the disease was discovered by chance when Dutch sailors were returning from Spain with their boat loaded with fruits, especially oranges. Lemon juice had also been used before Lynd was born. Lynd wrote a book, of which there were three editions, and as none were accepted by leading physicians in Europe it was nearly forty years before the naval authorities accepted the editions of Lynd as to the treatment of the disease.

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### **Sanitary Work at Niagara**

The arrangements at Niagara camp to have good sanitary conditions have been very satisfactory. Dr. John W. S. McCullough, C.O.H., Ontario, is in charge. Dr. J. G. Fitzgerald is in charge of the camp laboratory, his duties being to look after the water supply, to inoculate against typhoid fever, etc.

### NEWS ITEMS

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Dr Edward Kidd (Lient.-Col.) Trenton, Ont., has gone to the front with the A.M.C.

Dr. D. A. Coon has been appointed Medical Superintendent of the General Hospital, Kingston.

Dr. Warnock, M.P., for McLeod, Alta., is in charge of the Imperial Remounts at Montreal.

A party of 150 doctors, sanitary inspectors and medical students left Baltimore for Serbia, May 17th.

The Stationary Hospital at Exhibition Camp, Toronto, was moved to the Niagara Camp, May 20th.

Dr. E. M. VonEberts has been appointed Quartermaster of the McGill Base Hospital.

At the McGill University Annual Convocation the degree of LL.D. was conferred upon Dr. F. J. Shepherd.

Dr. F. W. Marlow, who succeeded Dr. Fotheringham at the Military Camp in Toronto, is now at the Niagara camp.

Dr. B. E. Kelly, of Peterborough, Ont., joined the Army Medical Corps at Folkestone, England, and is now in France.

Dr. Alan Kennedy, of McLeod, Alta., has been appointed Medical Referee for the Province of Alberta, under the Workmen's Compensation Act.

Dr. Alexander Fisher, formerly Superintendent of the Port Arthur General Hospital, has been appointed Medical Superintendent of the Hospitals in Calgary.

Dr. T. A. Starkey (Major), Professor of Hygiene, McGill University, has organized a sanitary section of the Army Medical Corps, consisting of 27 officers and men.

The Gore Street Church, Hamilton, has been turned into a Military Hospital with accommodation for 50 patients. The medical officers are Drs. D. S. McIlwraith and W. M. Carrisk.



Dr. William Oldright, of Toronto, returned to his home in May after wintering in the West Indies.

Prof. I. H. Cameron is still in charge of Surgery in the University of Toronto. The rumor that he had retired at the end of last session was incorrect.

Dr. George Atchison (Lieut.-Colonel), who for some time acted as medical officer at the ranges, Niagara Camp, is now in charge of a recruiting office at the drill sheds, in Hamilton.

A cablegram, dated June 14th, stated that Dr. H. S. Beland, M.P. for Beauce, who was in Belgium when the war broke out, was taken into Germany and interned as a prisoner of war.

Dr. G. G. Campbell, of Montreal, assisted by Dr. Scane, of the same city, are managing the *Canadian Medical Association Journal* during the absence of Drs. MacPhail and Francis, who are at the front.

Dr. J. F. Uren, of Toronto, had a serious attack of appendicitis early in May. After an operation he went to Atlantic City, where he completely recovered in a short time. He then returned to Toronto and resumed practice.

We join Dr. T. B. Richardson's hosts of friends in offering our congratulations on his recovery from a prolonged illness. He was placed in charge of the Hospital at Exhibition Camp early in May.

Dr. William Whyte, Professor of Surgery, University of Pennsylvania, left New York with a corps of physicians and nurses, May 15th, to join the staff of the American Ambulance Hospital, Paris.

Dr. J. D. Courtney (Lieut.-Colonel), of Ottawa, specialist in diseases of the Eye, Nose, Ear and Throat, has gone to the front to take charge of patients coming under his specialty among the Canadian troops.

It is expected that Dr. W. B. Cosby, for some time House Surgeon with the Toronto General Hospital, will be the Medical Officer of the new 58th Battalion, which has recently been organized.

Dr. G. S. Gliddon (Captain) Canadian Medical Corps, died from wounds received in battle, May 24th. In the same casualty list we find that Dr. G. S. Mothersill (Major) and Dr. F. C. Bell (Captain), both C.M.C., were wounded.

The Military Hospital of Queen's University is designated No. 5 Stationary Hospital. The French-Canadian Hospital, recently recruited at Montreal, is designated as No. 4 Stationary Hospital, and the McGill Hospital, which is designated No. 3, is now at Boulogne.

In a recent issue of the *British Medical Journal* it was reported that South Australia had sent another cheque for £250 for the Belgian Relief Fund. In commenting on this it says: "The continuance of open-handed support from the Colonies is a most gratifying feature, and accords thoroughly with the noble national spirit which the outlying parts of the Empire have displayed in every regard since the war began."

A cablegram was received from Colonel Ryerson, C.R.C.A., stating that in company with M. Gabriel Anatole, the French Secretary of State, he went over the battle front in France and Flanders, and made a thorough inquiry into hospital conditions, particularly as affecting the Canadian wounded. His official report, which will be handed to the Government on his return to Canada, will, we understand, be quite satisfactory.

Sir John French reported that on May 24th, over a front of five miles, gas was emitted from cylinders for over four hours by the Germans, while at the same time shells containing asphyxiating gases were being fired. In some places the gas cloud arose forty feet from the ground. Sir John also stated that it had been demonstrated that with due precautions this form of attack could be met and defeated. The respirators are now medicated mostly with a solution of sodium bicarbonate and hposulphite.

Most of our readers know that a Canadian Army Dental Corps was organized some time ago and did admirable work for some months at the camp in Exhibition Park, Toronto. This same corps is now doing work at the camp at Niagara under the direction of Lieut. Hume, D.D.S. He commenced his work at Niagara on June 14th, and has a regular staff of dental surgeons working in six chairs as they did in Toronto. In the organization of this clinic he was assisted by Dr. Marlow (Lieut.-Colonel) A.D.M.S. and his staff.

Lieut.-Colonel G. S. Ryerson, of Toronto, has been granted the honorary degree of Surgeon-General.

Among the medical men mentioned in despatches for gallantry by Sir John French were Lieut.-Col. D. W. McPherson, M.D.; Major E. B. Hardy, M.B., Toronto; Capt. P. G. Brown, M.B., Toronto.

Dr. Jno. L. Bray, Registrar of the Ontario Medical Council, is seriously ill in Chatham. We understand that he has tendered his resignation, which, however, at the time of writing has not been accepted.

Among the Canadian surgeons honored by the King were the following: Major H. A. Chisholm, who received the decoration of the Royal Red Cross; Capt. A. K. Haywood, M.D., and Lieut. R. M. Webb, M.D., who received the Military Cross, and the following Non-Coms. received the Distinguished Conduct Medal, Sergt. Brown and Sergt.-Major Clifton.

Nothing has been definitely decided as to the nature of the hospital to be furnished by the Province of Ontario. It is thought that a Convalescent Hospital will be established in the South of England. At a meeting of the Cabinet, June 22nd, it was considered advisable to send someone over to England to consult the Imperial authorities with reference to details, and the acting Premier, Dr. Pyne, was selected as a matter of course. Dr. Pyne left Toronto June 23rd for London, England.

The President of the Academy of Medicine, of Toronto, Dr. W. H. B. Aikins, gave a large Garden Party in the afternoon of June 23rd. Among the guests were the Fellows, their wives, and some others. The guests assembled first in the Main Building of the Academy, and then wandered at their will: some through the various rooms in the building, viewing the pictures and curios; the larger portion went out on the grounds, and after partaking of refreshments in a large marquee they sauntered about the garden. The universal verdict was that it was a very pleasant function in all respects.

A joint committee upon the Teaching of Oto-Laryngology in the Medical Course and upon the Training to be required of the Specialist, has recently been appointed, to represent the American Otological Society, the American Laryn-



gological Society, the American Academy of Ophthalmology and Oto-Laryngology, the American Medical Association, and the American Laryngological, Rhinological and Otological Society. This Committee includes in its membership Dr. D. J. Gibb Wishart, Toronto, Chairman; Dr. T. J. Harris, New York, Secretary Drs. Ballenger and Ingals of Chicago, Dr. Levy, of Denver; Dr. Dean, of Iowa City; Drs. McCuen, Smith, Reber, Randall and Makuen, of Philadelphia; Dr. Richards, of Fall River, Dr. Chas. Richardson, Washington, and Dr. Birkett of Montreal. The Committee organized in Chicago last week during the meeting of the Trilogical Society.

On the 10th of June the following items were cabled to Canada: There are 6,000 wounded Canadians in England, mostly from the Provinces, at Birmingham, Cardiff, Bristol, etc. Lieut. Ryerson, son of G. Sterling Ryerson, of Toronto, who was wounded while performing gallant work in conveying ammunition to batteries, has left the Hospital at Shorncliffe, and is now at Oxford, having almost recovered from his illness.

Dr. A. E. Ross (Lieut.-Colonel), M.P.P., Kingston, who is now at the front with No. 1 Field Ambulance, writes as follows: "During the battle of Langemark the ambulances had their first workout and did well. Our No. 1, when the call came, was a bit later than Nos. 2 and 3 in establishing the main dressing station, but all our bearers were at work from the beginning. The work was rather interesting, but after the excitement was over and the units lined up for roll-call the effect was rather depressing. The place selected for the three ambulances finally came under fire. For two days they shelled us. The building occupied by No. 1 was first hit and the men moved out. No. 3 moved back to certain fields for two nights, finally, about 1 a.m., they let loose on us and we vacated our position. We commenced at once to load the ambulances, and in the midst of stiff shelling we got them all away. It was pretty good work, only those who saw it could appreciate it. This war is fierce. In three months more this contingent will be a new one completely. I see no end to the war, both sides are locked in the trenches, and if the first line trenches are taken there are seconds and thirds just as difficult. I have 212 men now, that is nearly up to strength."

Dr. Charles Hastings, M.O.H., Toronto, strongly favors the amalgamation of Western, Grace and Orthopaedic Hospitals.

At the last meeting of the Canadian Order of Chosen Friends, at Hamilton, Dr. Edwards, M.P., for Frontenac, was chosen Grand Councillor.

Among the many instances of Fulford generosity one of the most satisfactory is the bequest by the late Senator Fulford of \$400,000, to be paid in October next for the purpose of building and maintaining an Aged Women's Home in connection with the Brockville General Hospital.

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### Health News Items

*The Health Bulletin* from the Department of Public Health, Toronto, is still published monthly, and gives to the public much valuable information.

#### *The House Fly.*

Where is the fly born? In manure and filth.

Where does the fly live? In every kind of filth.

Where does he go when he leaves the manure pile and spittoon? Into the kitchen and dining-room.

What does he do there? He walks on the bread, fruit and vegetables. He wipes his feet on the butter and bathes in the milk.

Is the fly dangerous? He is more dangerous than wild beasts and rattlesnakes.

#### *Drowning.*

There were seven persons drowned in the Province of Ontario on Victoria Day. Drowning is preventable in most cases.

#### *Learn to Swim.*

There is no excuse for anyone not knowing how to swim in a city like Toronto. It should be an essential part of every child's education. The lives of many were saved in the *Empress of Ireland* and *Lusitania* disasters through knowing how to swim. It is not, however, absolutely necessary to know how to swim in order to keep from drowning. The human body in water weighs only one to five pounds, so that a small board or an oar or paddle with only one finger resting on it can keep the body floating if a person keeps a cool head and breathes regularly with his mouth closed.

*Possible Drowning.*

Get the body out of the water and at once try to restore life. Lay the body face downwards with the stomach resting on a roll of clothing or barrel, etc., with the head lower than the body to allow water to run out of the mouth. Then turn the body over and carry on artificial respiration. The easiest way is to alternately press and relax the lower ribs with the hands. Get someone to apply heat to the extremities. Continue your efforts for two hours.

*The Baby Comfort.*

The baby rubber comfort, so popular with mothers, is both filthy and dangerous. In the first place there is always the danger of serious infection. In addition to this the mouth arch is sometimes changed to such an extent that the child acquires an idiotic look which never disappears.

*Baby Homes in Toronto.*

In the year 1914, 168 babies under three years of age were placed in the baby homes of Toronto. Although all were bottle fed or spoon fed the death rate was under ten per cent. In certain large institutions the majority among those artificially fed is eighty per cent.

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**Results of Recent Examinations, Ontario Medical Council**

The following is a list of candidates who have passed the final examination of the College of Physicians and Surgeons of Ontario and are now licensed to practise:—

Joseph William Aikenhead, Brucefield; George William Alexander Aitken, London, Ont.; William Hambly Avery, Strathroy; Daniel MacTavish Baker, Fort William; Roy Ball, Toronto; Henry Merrett Barrett, Salford; John Arthur Bean, Clinton; George Ernest Binkley, Toronto; Robert Emmet Brady, Lindsay; Charles Oscar Broad, Little Britain; Rufus John Whitby Brooke, Georgetown; Walter William Buttle, Cobden; Walter Ruggles Campbell, Toronto; Theodore Augustus Carpenter, Port Dover; William Allen Cathcart, Court-right; Charles Cecil Cornish, Ingersoll; Waring Gerald Cosbie, Toronto; James Henry Cotton, Toronto; Eldon Douglas Coutts, Toronto; John Grant Cunningham, Moose Jaw, Sask.;



William Douglas Cruikshank, Hamilton; Gordon McIntyre Dale, St. Thomas; Allan Lester Delahaye, Pembroke; John Henderson Duncan, Toronto; I. De La Matter; George Percival Dunning, Riceville; Allan Boyd Earl, Athens; Wilbert Harold Eby, Cookstown; David Haymes Fauman, Rochester, N.Y.; Gordon Ferrier, Mimico; Robert Howard Fraser Chatham; William Paul Freeman, Lucknow; Harry Garrett Furlong, Norwich; Leonard Albert Glenn, Adelaide; Edith Hamilton Gordon, Toronto; Thomas Fleck Graham, Brantford; Freeman Reginald Guest, London; Thomas Reginald Guilfoyle, London; Dan Henry Guy, Maxwell; Charles Augustus Harris, Lakeside; Joseph Wilbert Hayes, Peterboro; Percival Hearn, Toronto; Karl Edward Hollis, Hamilton, Bermuda; William Alfred Jones, London; Thomas Francis Kelly, Orillia; Harold Ivan Kinsey, Chatham; Heikki Koljonen, Port Arthur; George A. Lamont, Guelph; Edmond Larocque, Alfred, Ont.; Frederick Levi Leacock, Easton's Corners, Ont.; Frederick Winnett Luney, London; Joseph Alexander Macdonald, Toronto; Frederick Chas. Marlow, Blackstock; Ambrose Bell Moffatt, Toronto; George Monfette, Montreal, Que.; Walter Carneil Morgan, Arden, Ont.; Henry B. Moyle, Waterford; Arthur James McGanity, Hamilton; George Crerar McIntyre, Paisley; John Judson McKendry, South Mountain, Ont.; William Russell McLaren, Corunna; Gordon Archibald McLarty, Toronto; David McMullen, Petrolea; Jonathan Foote McQuay, Toronto; Edgar Harold McVicker, Toronto; Robert White Naylor, Toronto; Chas. Newell, Milton; William Robert Newman, Toronto; Francis De Sales O'Connor, Harrow-smith; Vincent Keating O'Gorman, Cobalt; Arthur Allan Parker, Toronto; Gerald Hamilton Jeffery Pearson, London; Robert Wesley Phillips, Toronto; Adelard Louis Poisson, Belle River; Andrew Rutherford Riddell, Toronto; Thomas Clarence Routley, Toronto; Norman Franklin Schram, London; Thomas Jones Scobie, Hazeldean; William Glen Siddall, London; Thomas John Simpson, Waldemar; Emerson Charles Smith, Chesterville; Melville John Sproul, Martintown; William Berkeley Stork, Toronto; Archibald Steinberg, Berlin; Henry Archibald Stewart, Saskatoon, Sask.; Valentine Frederick Stock, Tavistock; William Andrew Vanderburg, Cayuga; Stanley Arthur Walker, Toronto; George McKee Watt, Brantford; Charles Edgar Wilson, St. Mary's; Ivan Dolway Wilson, London; William Nathan Winkler, Toronto; Harold Alonzo Wolverton, Nelson, B.C.

## ON OVERSEAS SERVICE.

The following is a list of the students who have had the license granted on account of having enlisted for overseas service:

Gerald Allisson, Picton; Robert Stanley Armour, Campbellford; Stanley Stafford Ball, Hanover; Arthur McKnight Bell, Merrickville; George Beatty Burwell, Renfrew; Leeming Anderson Carr, Hamilton; Harry Arthur Cates, Toronto; John Chassels, Toronto; Frederick Walter Clement, Deseronto; Richard Colter Coatsworth, Toronto; John Thomas Courtice, Toronto; Thomas Harold Crews, Woodstock; Charles Roderick Blackburn Crompton, Brantford; James William Deadman, Beeton; Donald Thomas Fraser, York Mills; Frederick Russell Gillrie, Hamilton; Morley Edward Gorman, Oakville; Harold Parrish Hamilton, Uxbridge; Maurice Round Helliwell, Toronto; William Roy Hodge, London; John Ranson Howitt, Hamilton; William Lorne Hutton, Brantford; Edward Shapter Jeffrey, Toronto; Clifford M. Keillor, Wallacetown; Frederick Russell Kirkham, Toronto; Herbert Carl Martin, Hamilton; Robert Beattie Martin, London; Athol Alexander Moon, Cotham; Robert Whiteman McQuay, Foxwarren, Man.; Paul Michael O'Sullivan, Toronto; Samuel Alexander Overend, Caledonia; Reginald Paul, Sebringville; David Emerson Scott, Spry; Harry Roy Smith, Toronto; Thomas Harold Douglas Storms, Hamilton; Hermon Brookfield van Wyck, Chatham; Stanley Young Walsh, Peterboro; David Edmund Wishart, Toronto; Harry Wishart Whytock, Madoc.

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**The Faculty of Medicine Results at University of Toronto**

Annual examinations for Diploma of Public Health:—Pass—C. P. Brown, D. C. Lohead, Miss R. R. Todd.

**FIRST EXAMINATION.**

Pass—W. P. J. Alexander, H. M. Allen, J. O. Allison, \*D. B. Avison (physics), Miss K. McB. Bartley, G. L. Ball, L. G. Brayley, M. J. Brown, N. S. Brymer, E. A. Carleton, D. S. Carrie, J. E. Carson, T. P. Carter, I. B. Cassidy, \*J. H. Coliton (chemistry), W. M. Connell, W. D. Cornwall, W. H. Crehan, G. W. Crow, \*M. G. Dales (physics), \*J. B. Deavitt (physics), D. Esser, H. Ferguson, C. P. Fitzpatrick, G. M. Fraser, F. deF. Free, A. Glassberg-Volpe, D. Halliday, H.

Hart, F. H. Haskett, J. V. Hayes, J. C. Hill, G. J. Hunter, R. E. Ives, G. S. Jeffrey, W. E. Johnston, G. R. Jones, M. W. Kemp, Miss M. G. Kerr, J. D. Kinsman, Miss E. L. Kiteley, H. B. Lane, J. K. Latchford, H. Lipchitz, H. S. Little, H. Lowrie, Miss B. V. Marvin, G. M. Matheson, J. R. Miller, W. H. Miller, G. O. Mills, H. R. Moon, D. Muir, Miss H. M. Muir, J. K. P. Murray, A. B. McCarter, Miss J. R. McClure, \*W. G. McCormick (physics), J. W. McDowell, Miss L. D. McLatchie, A. L. McLean, H. O. Macnamara, R. J. McPherson, J. F. McQuay, Miss L. G. Neelands, H. I. Palmer, R. E. Palmer, R. S. Paterson, L. A. Pequegnat, T. G. W. Phillips, A. Podnos, H. J. Quinn, W. R. Riddell, \*K. P. Rumball (biology), K. Y. Sinclair, J. B. Somers, J. T. Speck, C. A. Spence, A. E. Stewart, J. L. Sutherland, \*A. A. Thompson (physics), J. A. Vanderburgh, \*L. E. Verity (biology), W. P. Warner, G. R. Wellwood, E. G. Wheeler, F. W. Wilkinson, C. V. Williams, Miss A. B. Williamson, W. Wilson, G. T. Zumstein.

The following students have been granted the examinations of the first year, on account of active military service:—J. O. Anderson, C. G. Bryan, W. L. Carruthers, A. S. Dunn, R. J. Elliott, W. H. Gauld, W. H. Gray, A. J. Kilgour, H. B. Lang, J. M. McEachern, A. McF. McFaul, H. C. McVean, F. J. O'Leary, R. E. Rivers, J. B. Symington, D. B. Webster, D. W. G. Murray.

## SECOND EXAMINATION.

Pass—G. H. Agnew, W. S. Aitchison, Miss A. J. Anderson, \*R. H. Baker (anatomy and biochemistry), O. F. Banting, W. H. Batten, G. A. Bentley, C. E. Benwell, W. P. Boles, Miss G. L. Boyd, \*A. J. Bromley (anatomy and biochemistry), C. C. Brown, Miss M. A. C. Bulmer, M. H. Bunt, B. R. Burns, R. F. Cain, J. C. Copp, E. G. Coulson, M. A. Cox, W. H. Cunningham, R. Davis, C. J. Devins, W. B. Edmonds, L. C. Edmonds, J. R. L. Eede, G. R. D. Farmer, H. Feader, T. B. Feick, C. A. Findlay, \*F. W. Forge (biochemistry and history), C. T. P. Garbutt, W. A. S. Geddes, W. J. Henry, A. B. Holmes, W. H. Holmes, H. E. Hopkins, H. O. Jones, R. E. Joyce, \*Miss C. I. M. Kennedy (anatomy and biochemistry), R. B. Kennedy, F. S. Lazenby, \*J. W. Leach (biochemistry), I. M. Lloyd, W. D. Logie, D. M. Low, A. S. Malcolmson, Miss F. M. Meader, \*R. H. Morris (histology), C. V. Mulligan, D. McCallum, \*J. H. C. McClelland (biochemistry), J. T. McCosh,



J. D. MacDonald, D. W. McKay, N. D. McLeod, H. J. McNally, F. P. McNevin, A. W. Macpherson, J. H. Nesbitt, T. Owen, W. R. Parks, W. H. Pedley, D. Perlman, R. W. Rankin, R. N. Reuber, E. C. Riseborough, \*J. M. Robertson (anatomy and biochemistry), L. C. Rymal, R. A. Seymour, M. Siegel, R. W. Simpson, J. Sinclair, \*Miss L. H. Snider (biochemistry), M. H. Soules, R. J. Spence, W. B. Steinhauer, H. W. Street, L. M. Stuart, \*B. C. Sullivan (biochemistry), H. Sullivan, R. H. Tucker, G. T. Urquhart, O. Van Etter, \*L. Wagner (biochemistry), F. N. Walker, W. McL. Walwyn, W. A. Werden, \*S. E. T. West (anatomy and biochemistry), A. T. Whealy, \*Miss M. E. Wilkinson (biochemistry).

W. J. Henry is granted *agrotat* standing in the subject of bacteriology.

The following students have been granted the examinations of the second year on account of active military service:—N. J. Bicknell, A. M. Carlisle, W. J. Cryderman, R. H. Doyle, W. A. Dafoe, E. R. Gilmer, R. B. Hare, C. E. Hill, W. P. Hogarth, J. E. McGillivray, P. D. McIntosh, W. L. McKenzie, G. H. Ramsey, I. B. Roger, N. H. Russell.

### THIRD EXAMINATION.

Pass—J. F. Adams, Miss M. B. Becker, F. H. Boone, A. J. Boyce, Miss M. F. Bray, \*S. Brisson (anatomy), \*W. E. Brown (anatomy and clinical surgery), Miss R. C. Cale, G. R. Clark, B. S. Cornell, D. I. Davis, G. M. Dobbin, J. S. Douglas, J. F. Edis, \*F. J. Elkerton (anatomy), H. A. Elliot, C. Farquharson, D. G. Findlay, D. R. Finlayson, C. E. Frain, \*C. K. Fuller (clinical surgery), J. A. Gilchrist, J. E. Gimby, J. A. R. Glaney, M. G. Graham, W. L. Graydon, A. W. Gregory, \*A. Grisdale (clinical surgery), W. Hall, \*W. I. Henderson (physiology), F. W. W. Hipwell, E. D. Hutchinson, W. G. Jamieson, A. M. Jeffrey, G. D. Jeffs, \*Miss M. E. Johnston (clinical surgery), J. L. King, \*B. S. Loney (anatomy), \*R. H. Malyon (clinical surgery), J. A. Mathers, C. O. Miller, \*C. V. Mills (clinical medicine and clinical surgery), F. R. Mitchell, I. N. Mitchell, H. A. Mitchell, W. T. B. Mitchell, A. Montgomery, A. J. Moody, J. C. McClelland, \*J. H. Macdonald (anatomy and pharmacology), J. M. McDonald, C. S. Macdougall, A. MacKay, F. M. MacKenzie, \*C. R. MacTavish (physiology and clinical medicine), F. S. Parney, P. Peacock, C. V. Pratt, G. R. Scott, \*G. K. Shirton (anatomy, pharmacology and clinical surgery), W. E. Sparks, Miss I. Steinmetz, \*E. L. Stoll (anatomy, physiology and pharmacology), \*E. C.

Tate (anatomy), W. P. Tew, N. O. Thomas, \*C. E. Thompson (pharmacology and clinical medicine), H. D. Veitch, T. E. White, A. J. McIntosh.

W. W. Barraclough passed in the subjects of pharmacology, pathology and pathological chemistry, third year.

A. J. Boyce is granted ægotat standing in the subjects of anatomy, physiology, pathology and pathological chemistry, third year.

J. L. King is granted ægotat standing in the subjects of anatomy, physiology, pathology and pathological chemistry, third year.

R. MacKinlay is granted ægotat standing in the subjects of the third year.

A. W. Greory is granted ægotat standing in the subjects of clinical medicine and clinical surgery, third year.

The following students have been granted the examinations of the third year, on account of active military service:—F. G. Banting, W. B. Barnes, Y. Blaynay, G. C. Cameron, V. Carlisle, S. J. Evelyn, J. H. Howell, H. J. Irvine, W. R. Lane, F. W. Leech, W. C. Little, W. S. McClinton, A. E. MacKenzie, J. W. MacKenzie, E. Nettleton, C. A. Rae, J. W. Reddick, J. S. Reid, C. V. Scott, W. J. Scott, P. R. Shannon, J. R. Smith, G. H. Stevenson, J. G. Strachan, G. F. Sykes, C. A. Wells.

Students in arts, in the physiological and biochemical course, who have completed their examinations in bacteriology:—W. W. Barraclough, A. J. Boyce, H. A. Elliot, C. K. Fuller, J. A. Gilchrist, W. Hall, G. D. Jeffs, H. A. Mitchell, J. C. McClelland, C. R. MacTavish, C. V. Scott, J. R. Smith, N. O. Thomas.

## Personals

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Dr. Forbes Godfrey and Harvey Clare returned from a trip to the Barbadoes, May 1st.

Dr. Bruce Smith and Dr. J. M. Forster returned from a trip to Old Point Comfort, May 22nd.

Dr. Margaret Patterson delivered an address to the 48th Highlanders' Chapter of the Daughters of the Empire on May 21st.

It is expected that Colonel G. Sterling Ryerson, his daughter, Miss Laura, and his son, Mr. Arthur, will return to Toronto early in July.

Dr. A. D. Watson, of Toronto, was elected President of the Laymen's Association in connection with the Toronto Methodist Conference, June 9th.

Dr. R. L. Hutton, of Rosthern, Sask., passed through Brantford and Toronto, May 15th, on his way to England to volunteer his services to the British War Office.

Dr. J. Milton Cotton, of Toronto, received word June 6th, that his son, Douglas Cotton, was wounded June 5th. Before that he had gone through the Langemark battle unhurt.

Mr. William Ramsay, formerly of Toronto, now living in Scotland, paid his annual visit to Canada in May, and while in Toronto contributed \$1,000 to the Hospital for Sick Children.

Hon. Dr. Sproule, of Markdale, Speaker of the House of Commons, who has represented East Grey for thirty-seven years, has issued a statement that he will not be a candidate for re-election.

It was reported June 19th that Dr. R. D. Rudolf, who was one of the first of Toronto physicians to go to the front, has been seriously ill, and, having obtained leave of absence, is returning to his home.

Professor Irving H. Cameron, of the University of Toronto, has been appointed honorary visiting surgeon to the new King George Hospital, at Waterloo Road, London, England. The building, when completed, will have 1,650 beds. Mr. Cameron sailed from New York June 15th.



Certain rumors respecting a mysterious disease in the Infants' Home, Hamilton, spread through that city early in June. Dr. Laing, acting M.O.H., in the place of Dr. Roberts, who is gone to the war, reported June 9th that the disease was a form of eczema.

Dr. Chas. R. Dickson (consultant in Electro-Therapeutics to Toronto General Hospital) begs to announce to the medical profession that Dr. G. R. Reid is now associated with him in his electro-therapeutic practice, which will in future include the diagnostic employment of the X-ray.

Dr. James A. Robertson and his son, Dr. Lorne Robertson, of Stratford, returned from Japan about the middle of May. Dr. Lorne stopped a couple of weeks at Rochester to visit his old friends the Mayos. A very interesting account of the trip through Japan was written by Dr. Lorne Robertson and published in the *Stratford Daily Herald*, the first instalment appearing May 29th.

Lieutenant-Governor Brown, of Saskatchewan, on behalf of the medical men in his Province, offered to equip and maintain a complete Field Hospital during the war. Ontario has made a similar offer. The little loyal city of Peterborough made a similar offer some time ago.

In our last issue we reported the illness of Dr. W. J. Gibson, from Belleville. As we then stated the trouble was general septicæmia. His condition was serious during the latter part of May, and still more so in the early part of June. About June 10th, however, the serious symptoms had pretty well subsided, and he has steadily improved since that time.

Dr. W. A. Sargent, of Colborne, suffered for some weeks from septicæmia, affecting especially the hand. After being attended by Dr. Gibson, of Belleville, up to the time of his own infection he came under the care of Dr. Bruce in the Wellesley Hospital. It was reported June 15th that he had almost entirely recovered.

Mrs. Fulford and Mr. and Mrs. A. S. Hardy have given \$60,000 to the Canadian Red Cross Hospital at Cliveden. In the same hospital a recreation room, costing \$2,500, has been added by Colonel and Mrs. Albert Gooderham, Toronto. The Misses Janes, of Toronto, have equipped the operating room at a cost of \$2,100. It is thought that there are now 1,000 beds in the hospital.

## Obituary

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### CHARLES SHUPE, M.D.

Dr. C. Shupe, of Attercliffe Station, Ont., died May 6th, aged 69. He graduated from the University of Toronto in 1884.

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### WILLIAM ST. J. DOWNEY, M.D.

Dr. W. S. Downey, of Salt Lake City, Utah, died April 25th. He was a son of the late Dr. W. S. Downey, who practised for many years in St. Catharines, Ont.

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### WILLIAM P. DILLON, M.D.

Dr. W. P. Dillon, who went to the front with the First Contingent, was killed at Le Tréport, where he was stationed with the A.M.C. He was graduated from McGill in 1904 and practised in Ottawa.

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### GEORGE CLARENCE GLIDDON, M.B.

Dr. G. C. Gliddon died May 11th, of wounds received at the battle of St. Julien. He belonged to the A.M.C., and graduated from the University of Toronto, in 1904.

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### JAMES BRANSTON WILLMOTT, D.D.S., LL.D.

We have to announce with deep regret the death of Dr. Willmott, at the Toronto General Hospital, Toronto, on June 14th, aged 78 years.

Dr. Willmott was probably the most prominent member of the dental profession in Ontario, and in many respects was also closely associated with the medical profession. After teaching dentistry privately for a time he organized, in 1875, a School of Dentistry. Drs. Luke Tesky and W. T. Stewart, well known teachers in Trinity Medical College, were members of the staff. He was the first President of the Canadian Dental Association, the Dean of the Dental College up to the time of his death, and a member of the Senate of the University of Toronto for about 29 years. The degree of LL.D. was conferred upon him at the last Convocation in June, 1915.

## Book Reviews

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*A Practical Treatise on Diseases of the Skin.* By OLIVER S. ORMSBY, M.D., Professor of Skin and Venereal Diseases in the Rush Medical College, Chicago. Octavo, 1,168 pages, with 303 engravings and 39 plates in colors and monochrome. Cloth, \$6.00, net. Lea & Febiger, publishers, Philadelphia and New York.

Those who hold in high esteem the work of the late Dr. J. Nevins Hyde, will see with pleasure the appearance of this treatise from the pen of one who had a long and intimate association with that distinguished dermatologist. The author has been fortunately situated to carefully collect and sift the world's dermatological literature—no light task when the etiology of so many obscure diseases is constantly undergoing investigation. Many new diseases have recently been differentiated, these with the recent results of pathological investigation and advances in therapeutics have all been included in the present volume.

The illustrations and plates are excellent, and include some from Dr. Hyde's work, with a large number from the author's own collection. References to recent literature render the book most useful to the specialist who is desirous of following some particular field of investigation.

For either student, practitioner or dermatologist Dr. Ormsby's work will be found a most excellent treatise on diseases of the skin.

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*Materia Medica and Therapeutics.* A Text-Book for Nurses. By LINETTE A. PARKER, B.Sc., R.N. Illustrated with 29 engravings and 3 plates. Lea & Febiger, Philadelphia and New York, 1915.

In teaching materia medica and therapeutics to nurses, it is often difficult to know how much to say and how much to leave unsaid. "A little knowledge is a dangerous thing," and while it is necessary for a properly trained nurse to have some conception of the uses of the drugs she administers, she must recognize that she is in no position to prescribe herself. We venture these remarks because the book before us seems to have hit upon the



happy medium in the knowledge it imparts. Based upon a general acquaintanceship with anatomy and physiology, the subject is presented in a clear and rational manner. Essentials are emphasized and theory is not too prominent. Well-selected illustrations are used, and practical demonstrations and experiments are given.

We consider this one of the best nurses' text-books we have seen.

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*The Commoner Diseases, Their Causes and Effects.* By DR. LEONHARD JORES, Marburg, authorized English translation by William H. Woglom, M.D., Assistant Professor in Columbia University; Assistant Pathologist to St. Luke's Hospital, New York City. With 250 figures in the text. Philadelphia and London: J. B. Lippincott Company.

In this book the pathology of many of the commoner diseases is discussed and disturbance of function correlated to disturbance of structure. The book contains some very excellent plates, and will, no doubt, be of considerable interest to those interested in the more strictly academic aspects of medicine.

## Success in the Treatment of Febrile Conditions

such as typhoid, influenza, pneumonia, puerperal fever, etc., means the realization of the following factors: (1) an abbreviation of the course of the disease if possible, (2) the prevention of complications, and (3) hasty and complete convalescence.

Success can only be attained by maintenance to the highest possible degree of the vital resistance of the patient by judicious feeding.

As a result of the increased combustion and the morbid changes affecting the peptic and other digestive glands, the anorexia and wasting of a patient demand an easily digestible food that can be relied upon as possessing valuable tissue-building properties.

Such a food is

# Grape-Nuts

“There’s a Reason”

It is a palatable, non-irritating, partially predigested, concentrated food of high caloric value. Grape-Nuts food comes in the form of crisp granules of whole wheat and barley with their retained cell-salts—iron, calcium, magnesium and potassium—all valuable in the repair of devitalized animal tissue.

The *Clinical Record*, for Physician’s bedside use, together with samples of **Grape-Nuts**, **Instant Postum** and **Post Toasties** for personal and clinical examination, will be sent on request to any Physician who has not yet received them.

Canadian Postum Cereal Company, Limited, Windsor, Ont.

## Selections.

### Angina Pectoris

II. Vaquez (*Archives des malades du coeur, des vaisseaux, et du sang*, March-April, 1915), discusses the symptoms, pathology, causation, and diagnosis of angina pectoris. Clinically he divides the cases into the two groups of the angina of effort and the angina of decubitus, but in the later stages of either form of the disease the distinction becomes less clearly marked, and either form may rapidly be followed by the other. The complications of the disease belong to either form, although as a rule pulmonary œdema is more particularly associated with the angina of decubitus. Certain atypical forms are met with, and one form, to which the name of "abdominal" or "epigastric" angina has been given, frequently results in errors of diagnosis. In determining what organic lesions may be present, very great importance attaches to the results of radioscopy examination. As a rule, in the angina of effort, aortitis is present. The qualitative changes shown by radioscopy are diminution of transparency of the walls of the aorta, which on the screen look either uniformly dark or sown with scattered dark patches. Very often there is more or less complete immobility of the vascular contours, indicating loss of elasticity in the vessel walls. Radioscopy may also reveal modifications in volume whose detection has escaped ordinary methods of observation. One change of much significance in the diagnosis of the epigastralgie form of the disease is enlargement of the aortic arch, or rather of the cord subtending the arch, and this change, when it is present, is always accompanied by vascular changes affecting especially the descending branch. In some cases in which even radioscopy fails to show any organic lesion during life, marked changes in the aorta may be found *post mortem*. The aortitis in the angina of effort is most often localized to the suprasigmoid region, to the origin of the great vessels and the coronary arteries, whose openings are very frequently narrowed. But the essential fact underlying the anginal attacks is, in the author's opinion, the aortitis and not the affection of the coronary arteries. In the angina of decubitus, although atheroma of the aorta may exist, accompanied by dilatation of the vessel and narrowing or insufficiency of the aortic valves, yet the most striking feature is the change in the volume of the heart, more especially of the left heart. The co-existence of aortic lesions and of left ventricular hypertrophy



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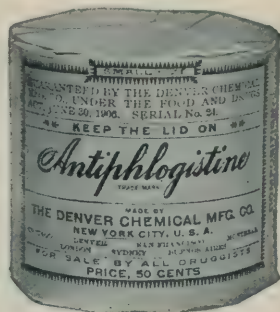
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and sclerous nephritis explains the fact that the clinical types of the disease are not always distinct. The pain in the angina of effort is explained as being due to sudden distension at its origin of an aorta whose walls are, as a rule, more or less infiltrated by inflammatory foci extending towards the outer coat, and thus involving the nerves contained in it. Where chronic aortitis is present, the obstinacy of the pain depends on the accompanying peri-aortitis. The pain of the angina of decubitus is explained in a manner similar to that of the other form, except that here it is sudden distension of the left ventricle which determines the attack. In considering the method of causation of the pain, the author ascribes a considerable rôle to the depressor nerve of Cyon, which has been shown to be a sensory nerve, and whose ramifications are located in the region of origin of the great vessels at the base of the heart. The pain which originates at the heart or the aorta is conducted first to the cardiac plexus, and its initial seat is in the corresponding region—that is, the retrosternal region. The paths by which the stimuli reach the central nervous system and the resulting distribution of the radiating pains are followed out in the article. With regard to causes of angina pectoris, heredity is undoubtedly an important factor. Syphilis is often, though not invariably, a cause of the angina of effort. Alcoholism appears to have at most an indirect effect, while it is very doubtful whether excessive use of tobacco has even an indirect action. In the author's opinion, the symptoms of the angina of effort are, as a rule, so characteristic that the disease ought not to be mistaken for any other, and the term "false angina" should only be used to relieve the anxieties of nervous patients; at the same time, methodical examination by auscultation and radioscopy must be carried out in every case. Diminution of the pains after a series of typical anginal attacks does not invalidate the diagnosis, and may be merely the result of precautionary measures. In cases where the angina of effort has altered its type as the disease progressed, the history of the first few attacks makes the diagnosis clear. The diagnosis of angina from various forms of neuralgia is considered, and also from a fixed paroxysmal pain, made worse by pressure and due to small areas of cellulitis in the precordial region. The pain of angina may be closely stimulated by that of extra-systoles with arrhythmia, but there is necessary connexion with effort. The heart and vessels are probably absolutely sound, and the extra-systoles can frequently be perceived. The diagnosis of angina of decubitus is, as a rule, comparatively an easy matter.—*B. M. J.*

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## Miscellaneous

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### The Neurasthenic Invalid

Like the poor, the neurasthenic is "always with us," and while the stress and strain of modern life and living continue, the physician will be called upon to treat the more or less chronic invalid who exhibits all sorts of bizarre symptoms, in endless and kaleidoscopic variety. It is, of course, an easy matter to advise the physician to search out and remedy the operative cause of the disorder, but it is not always as easy to do this, especially when no organic changes are discoverable. While purely symptomatic treatment may be unscientific, it is usually essential, in order to gain and retain the confidence of the patient. There is, however, one pathologic finding in a large majority of cases, and that is anemia of greater or lesser degree. In some instances this may be found to be the essential cause of the neurotic symptoms. In any event, this condition should be corrected, and for such purpose there is no better remedy than Pepto-Mangan (Gude). When a hematinic is indicated for a nervous, cranky man, or a finicky, more or less hysterical, woman, Pepto-Mangan is peculiarly serviceable, as the patient cannot consistently object to the taste, which is

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agreeable to everyone. The digestion is not interfered with in the least, constipation is not induced, and the blood-constructing effect of the remedy is prompt and certain. It is always worthy of trial not only in the anemia of the neurasthenic invalid, but also in all conditions of blood and tissue devitalization.

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### The "Positive Diagnosis" of Duodenal Ulcer

A. E. Barclay, writing with regard to the claims of some radiographers to speak of the "positive diagnosis" of duodenal ulcer, states his belief (*Arch. Roentgen Ray*, January, 1915), that formation of a duodenal ulcer is a more or less accidental sequel to a state of duodenal irritation, and that this state of duodenal irritation is itself a secondary manifestation. The symptoms ascribed to duodenal ulcer, and usually cured by operation, are the result, in his opinion, of this state of irritation, and not of the ulcer itself. Thus there may occur a "clinical duodenal ulcer," without any definite and constant deformity of the shadows in the duodenum on which this positive or negative diagnosis is based. Furthermore, the tendency of duodenal ulcers towards recurrence and healing postulates the formation of an ever-increasing scar, and this scar may produce just those deformities and pits on which the so-called positive diagnosis of ulceration depends. It is rather the effects of ulceration which are demonstrated by this radiographic method, and no clue is furnished as to whether the deformity is or is not of pathological significance. The author's point is that it is not the detection of the ulcer which matters, but, given a condition which may lead to ulcer, such as duodenal irritation, it would be well to direct attention to seeking and removing the causes of the condition. He ventures the opinion that some day the operation of gastro-jejunostomy for this trouble will be a confession of weakness, for it will indicate failure to find and remove the cause of the recurring attacks.—*B. M. J.*

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### What we Tell Them

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often none to our catechists. Now, we must please or, at any rate, satisfy, our patients, otherwise they will leave us and go to the man across the road, to our annoyance and their detriment. The most altruistic policy each of us can pursue is to keep his patients, and so we are to some extent their slaves for their own good. The common or consulting-room female hypochondriac is the crucial case. The man who prides himself on his fearlessness and his honesty, says: "Madam" (this class of man always says "madam"), "there is nothing wrong with you. Live a healthy and a happy life and you will be as happy and as healthy as the life you live." True advice and unexceptionable. But it does no good. The patient trots across with the busy air peculiar to the woman with all the troubles of her own constitution on her shoulders to the other man. If he is wise he treats her seriously, understands her case, however impossible it be, and lays down a definite course of treatment for the careful cure of nothing. He may not succeed. Success is not for many. But he has done his best. We must remember that our patients are not perfect. It is help they want, not truth. If we treat them seriously they will benefit. In other case they fly either to patent medicines or an early grave, or both. The two are not incompatible. We must consider our patients even in what we tell them. There is as much truth as policy in this.—*The Medical Press*.

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### Deaf-Mutism

J. W. Stimson, Pittsburg (*Journal A. M. A.*, May 30, 1914), reports a case of absolute deafness and mutism in a child 4 years old, due to an attack of purpura hemorrhagica at the age of 23 months. The loss of speech has been progressive since the attack, and as none of the text-books on hand report hemorrhagic purpura as a cause of acquired deaf-mutism, the case is recorded.

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## Original Communications

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### CANCER OF THE UTERUS WITH SPECIAL REFERENCE TO DIAGNOSIS\*

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By DR. G. STEWART CAMERON, PETERBORO'.

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In bringing the question of Cancer of the Uterus before the attention of this meeting, and particularly of this section, I do not do so with the view of introducing any new material on the subject, but rather to reiterate what we already know of a disease that takes as its toll one woman out of eight who have passed the age of 35.

To my mind the keystone of the whole treatment lies in the early diagnosis, for once our profession is thoroughly seized with the importance of certain comparatively simple signs just so soon will the early detection of this trouble become possible, and once the early diagnosis is made, it will be an easy matter to secure the proper surgical treatment. We may go further and say that not only should our profession at large be alive to these early symptoms, but it should be their duty to instruct their patients that neglect of attention to these signs will inevitably lead, in far too many cases, to a fatal termination, for once the disease is established the possibility of successful surgical interference is extremely remote. I think, therefore, that every medical man should be a missionary among his female patients, instructing them in a sound, rational way whenever the opportunity presents itself.

I can well remember a few years ago, when a student in medicine, we were instructed in the various symptoms of cancer, such as wasting, cachexia, anorexia, and other symptoms, which to-day we all recognize as among the terminal evidences of this

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\* Read before the Ontario Medical Association, Peterboro', May, 1915.



trouble. I stated, we all recognize, but I am sorry to say that sometimes we find that there still persists among some members of our profession a desire to cling to these advanced signs, and not appreciate the earlier symptoms.

*Anatomy.*—In regard to the anatomy of the pelvic organs, I have only a word to say, and that is with reference to the lymphatic distribution. The uterus being developed in the abdomen and subsequently descended into the pelvis, retains its connection with the abdomen through the lymphatic and circulatory systems. The lymphatic drainage of the upper segment of the vagina and cervix is through the lymphatics in the base of the broad ligament, up through the iliac glands to the lumbar glands, encircling the abdominal aorta. The glands of the body and tubes drain into the iliac glands and thence upward in the same way. I consider it important to mention this as it shows the route of the lymphatic advancement directly upward into the abdomen. Through this arrangement the disease rapidly passes beyond our control, and the opportunity for successful operation is entirely eliminated.

*Age.*—We have been taught in considering diseases to regard age as a particular factor, and while this to a considerable extent has a bearing in many instances, when we come to consider malignancy it would be well to disregard it entirely, as there is no cancer age, the disease having appeared in almost all periods of life. There are certain broad divisions which we might make in saying that cancer of the cervix is more generally found in women at or before the climacteric, whereas cancer of the body is more frequently found in patients past the menopause. Again we might say that the cervical type is more frequently found in multiparous women, and that of the body in the nulliparous.

*Heredity.*—Heredity should not prejudice us in our judgment. Because the patient's forebears may have died of cancer it does not follow that she must have cancer, and, on the contrary, a clear family history should not weigh against highly suspicious symptoms.

*Hæmorrhage.*—Hæmorrhage is perhaps the earliest noticeable sign. When a patient presents herself complaining of loss of blood between periods, we should forget the age, whether they are married or single, and bend our energies to prove that we are not dealing with a case of cancer. The bleeding of early cancer is usually irregular and inter-menstrual and is often produced on the slightest exertion. It may be very slight and

the patient pay little attention to it, but careful questioning will usually show that it has gradually increased. If the patient is past the climacteric and comes complaining of hæmorrhage one or more years afterwards, we should be extremely suspicious that we are dealing with malignancy and again prove to our own satisfaction that it is not such. Patients may appear complaining of hæmorrhage which they say is from other pelvic organs, and one may be led astray by accepting their simple statement. Again we should be suspicious and make a thorough investigation. An instance of this occurred not long ago where a patient complained of bleeding from the bladder; subsequent examination, however, under anæsthesia, showed the bladder to be perfectly healthy, but a beginning of cancer of the body of the uterus to be present. There are certain cases in which examination shows undoubted fibromyomata present, and in view of the fact that we know that a fair percentage of these cases have cancerous involvement as well, it would be better to get microscopical findings, and know positively what changes may be going on in the endometrium.

*Discharge.*—The discharge at first will be leucorrhœal in character, perhaps more profuse than usual, but many of these patients having had lacerated cervixes with more or less cervicitis, one cannot say that the early discharge is at all characteristic of cancer, but as the ulceration progresses, the discharge becomes thinner and watery in character, more profuse, often-times brownish in color owing to admixture of blood. Still later when invasion by bacteria has taken place the discharge takes on that disagreeable foetid odor.

*Pain.*—Pain is not marked. All cancer is distinguishable by its absence in early stages, so that pain as an evidence in this locality must be set aside. Later on when the disease has gained considerable headway, and we get erosion of and pressure on the nervous structures, pain will come into evidence.

*Loss of Weight.*—Loss of weight which we have also associated with cancer is one of the late symptoms; in fact, I have often been struck with the fat, healthy appearance of the patient, and subsequently found that she had a well marked malignant invasion, so we must not be led astray by the apparent healthy appearance of our patient.

Examination in the early case may frequently give little positive evidence. Histologically, we know that the disease begins in the squamous epithelium on the outside of the cervix, or in the columnar cells somewhere in the canal. If then we

find ulceration which has hardened edges and friable and which bleeds easily, we should at once place the case in the more than doubtful class, and proceed to get microscopical findings. On the other hand, if the disease has begun in the canal we may neither see nor feel anything, or if the cancer has begun in the body of the cervix it will have a perfectly healthy appearance. This should not satisfy us by any means. I think we are quite justified in dilating the cervix and making as thorough examination of the canal and body as possible, and to do this careful methodical curettage of every interior part is demanded. These scrapings should be washed, put into 10% formaline, and submitted at once to a competent pathologist. The uterus should be normal in size, pretty freely movable and no increased tenderness.

The loss of blood per vaginam during the child-bearing period of life is a normal procedure, but any deviation from the established menstruation must have some cause behind it and it might be well for a moment to briefly consider some of these causes.

1st. *Abortion*.—There will be a history of one or more missed periods with some of the other symptoms of pregnancy. These followed with free loss of blood and characteristic pain will pretty well establish the cause.

2nd. *Ectopic Gestation*.—Again a missed period or more with other evidences of pregnancy. The discharge is red or brownish red, irregular and oftentimes mixed with shreds of decidua. Examination will reveal a soft tumor in close apposition to the uterus, but distinct from it.

3rd. *Post-puerperal Hæmorrhage*.—Either after full term or more frequently after an interrupted pregnancy. Here the bleeding may be fairly free, with no pain. Examination will show a sub-involuted uterus, fairly dilated os, with blood coming from the body. Examination of the interior will usually show retained portions of placenta or a beginning chorion epithelioma.

4th. *Uterine or Tubal Infections*.—There is usually a history of a previous pregnancy or an unusual discharge. Bleeding is that of prolonged periods with temperature usually present at some time of day. Examination will show a painful tender mass in the pelvis closely related to the uterus.

5th. *Fibro-Myomata*.—The history of the bleeding here is usually that of the menstrual periods being gradually prolonged, and the flow noticeably increased. Examination will show an



irregular walled uterus, hard knobs being present, or else there is evidence of the polypoid form on the inside.

6th. *Hæmorrhagic Endometritis*.—This again shows increased flow, frequency of periods, and may prove very doubtful until careful examination of the scrapings has been made.

7th. *Fibrous Uteri*.—The hæmorrhage is at the period, profuse and much prolonged.

In conclusion, let me say that any change from the normal in the loss of blood should put us on our guard. We should take a systematic history of our patient and insist on a careful and thorough examination under anæsthesia, if necessary.

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## SOME OBSERVATIONS ON BLOOD PRESSURE\*

BY DR. A. T. EMMERSON, GODERICH.

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The more one studies blood-pressure the more complex the subject becomes. Normal individuals have abnormal pressures. In some it is fairly even under ordinary conditions, in others it varies much with very little change in exercise, rest, work, or manner of living; notwithstanding these variations much information may easily be acquired that is very helpful and this will be increasingly so as knowledge of this subject becomes more fully developed by those who have the proper facilities for pursuing this line of research. It is only in the last decade that there has been a marked general interest in the subject, an interest not confined to medical men who study it for the purpose of knowing its bearing in physiological and pathological conditions and how best to deal with it, but applications for certain callings require a register of the blood pressure of the applicant; notably is this so, in life insurance, where it is regarded as a very important element in the risk.

For a working knowledge there must be a consensus of opinion as to what we mean when we speak of *blood pressure*. There is the blood pressure in the various parts of the venous system, in that of the capillaries, in that of the different arteries, and in the various sub-systems of the general system. In an ordinary healthy man aged twenty the systolic pressure in the aorta is about 175mm., in the brachial 120mm., in the radial 115mm., and in the capillaries about 60mm.

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\* Read before the Ontario Medical Association, Peterboro', May, 1915.

In its common acceptation it is restricted to the arterial system and in that system to the tension in the radial or brachial artery. The pressure in the latter is slightly higher than that in the former. Blood pressure is the measure of the heart's power to force the blood through the arterial system. Four of the main factors in maintaining this pressure are, the energy of the heart, the resistance of the arterioles, the elasticity of the vessel walls, and the amount of the blood in the vessels.

There are some other terms we use that may be defined as they are commonly understood. There is the *systolic pressure*, which is the maximum pressure in a given vessel during a heart systole. The *diastolic pressure*, which is the lowest pressure in a given vessel during a heart diastole. The *pulse pressure* which is the variation during a cardiac cycle, that is, it is the difference between the systolic and diastolic pressures. The *mean pressure*, which is the average pressure at a given point. This, however, is not the half of the blood pressure, because the pressure at the systolic level remains for a much shorter time than at the diastolic level, also the first part of the drop is more rapid than the latter part, and these will vary in different individuals, the mean pressure may approximately be taken as about one-third of the pulse pressure. There is the *lateral pressure*, which is that exerted by the blood against the wall of the vessel. Then there is the *end pressure*, which is that exerted against an obstruction in the lumen of the vessel, and is of course greater than the lateral pressure, the difference being the effective pressure that produces the blood flow at the point.

The easiest way to obtain the systolic and diastolic pressures is by the armlet method and the stethoscope. Place the armlet about an inch or so above the elbow and the bell of the stethoscope on the brachial artery just below the armlet. As the armlet is inflated a pulse beat is faintly heard. This becomes rapidly loud, then slowly lessens until no sound is heard. Now let a little air slowly escape and the pulse beat will return. The reading at which it is first heard on its return will be the *systolic pressure*. As more air is allowed to escape, the loudness or amplitude of the beat will be heard increasing until it reaches its highest limit, then it quickly dies away. The reading when this fullest sound is heard will indicate the *diastolic* and corresponds with the time when the pressure of the armlet on the vessel is equal to the pressure inside the vessel. The fibrous coat with the encompassing tissues takes the place of the armlet when it is removed. This reading will also be noticed to correspond with the greatest oscillations of the indicator on the sphygmometer.

The normal pressure is best obtained if taken two or three hours after a meal, the person having rested during that time and being in the recumbent position while the reading is made, and having the arm on the same level with the heart. If the pressure is found abnormal it is wise to try the other arm.

*Pressure Readings.*—It is necessary that we know at least approximately the average pressure readings in normal healthy individuals. I have not been able to test this sufficiently to do more than make a fair working scale, and am aware it is likely to require correction. In making this scale I have used the nearest typical numbers for the purpose of easy remembrance.

|             |                    |        |                   |        |
|-------------|--------------------|--------|-------------------|--------|
| For age 20, | diastolic pressure | 90mm., | systolic pressure | 120mm. |
| " " 30      | " "                | 95mm.  | " "               | 125mm. |
| " " 40      | " "                | 100mm. | " "               | 130mm. |
| " " 50      | " "                | 105mm. | " "               | 135mm. |
| " " 60      | " "                | 110mm. | " "               | 145mm. |

The vanishing point of the pulse when we use the stethoscope is from ten to fifteen millimeters below the diastolic pressure. The readings for females are said to be about ten millimeters lower than those in males for corresponding ages.

When the person is in the recumbent position the pressure in the arm and leg should be about the same. There is one disease in which there is always about twenty to forty millimeters higher pressure in the leg than in the arm, that is, in aorta regurgitation.

To test the reserve energy of the heart, take the pressure when the person is at rest, then let him exercise, such as going upstairs. This should raise the pressure from ten to thirty millimeters higher. If it remains stationary it is because of lack of power in the heart to meet the demand.

While knowing the blood pressure is a very valuable aid in our work, we must not place undue weight on a single reading; there should be a series, especially if the readings be abnormal; nor should an observation be too prolonged, because the interruption of the circulation in the extremity will in itself, if continued, cause changes in the arm pressure.

*Physiological Variations.*—In order to know the significance of blood pressure in pathological conditions we need to bear in mind the variations in healthy persons and the conditions that may change it from normal to a high or low tension. We know that blood tension depends on at least four things, the amount of blood in the vessels, the force of the heart, the elasticity of



the arterial walls, and the resistance in the arterioles.' These will vary in normal cases in wide limits, by exercise, rest, digestion, fasting, positions of body, altitude, excitement such as from anger, fright, fear, joy or grief. Take an example of muscular exertion,—a man, aged twenty-six, by running up three flights of stairs, increased his systolic pressure by forty millimeters and his diastolic by ten millimeters. A brisk purgative or a profuse perspiration will lower the pressure. High altitude gives a venous engorgement and hence a lowering of arterial pressure and a quickening of the heart action; as an example of this it was noted in a case that the pulse was eighty and the blood tension one hundred and twenty-six millimeters at the sea level, while at six thousand feet above the pulse was ninety-nine and the blood pressure one hundred and eighteen.

The kind of air breathed, or the food eaten, or luxuries indulged in, will alter the pressure. Tobacco raises the tension; but its continued use or over-use will cause a peculiar condition in that the pressure is raised immediately after the smoke is taken, and then later there will be a low pressure. A boy in the out-department of a hospital was found to have a systolic pressure of 200 mm. On inquiring, he had just smoked a cigarette; and a young woman with a pressure of 210mm. had just previously smoked a cigar. In neither case could any pathological condition be found to account for the high pressure. Thus how very far apart may be the physiological variations.

It might not be amiss to give a quotation from an article in the *British Medical Journal*, by Dr. Price, on the action of digitalis on blood pressure. It is as follows:—

"In regard to the general subject of blood pressure one important point has been elicited. It is this, that in a considerable, indeed in almost a large, percentage of cases I have found a considerable fluctuation in the blood pressure from day to day. I am not now referring to variations associated with meals, but to diurnal variations which appear to be quite independent of these. Let me just mention one case to illustrate this. I had under my care a middle-aged man with a systolic pressure of about one hundred and fifty millimeters in whom there was a slightly enlarged heart, but no evidence of kidney disease. He was under my observation in the hospital for about five months. For many weeks I kept him in bed and took the blood pressure myself with the same instrument at the same time of day and under precisely the same conditions nearly every

day. There were frequent variations up to twenty-six millimeters. Now, if in by no means a small proportion of cases there may be considerable normal fluctuations from day to day, we should be very careful in coming to conclusions in regard to the action of drugs on blood pressure in man. It should never be forgotten that any changes observed after the administration of a drug in disease may be due to the natural course of the malady." To this I would add the question, How much of the variations may be physiological?

*Pathological Variations.*—Each disease has its own particular effect on the system, and the blood pressure so varies that it must be studied in connection with the disease. But if in an apparently healthy person it is found that the systolic pressure is constantly ten millimeters or more above normal, or the diastolic ten below, the diet, mode of living, etc., should be carefully investigated, and if after proper regulation of these the hyper or hypo-tension continues we may be pretty safe in concluding, even in the absence of other evidence, that some pathological process is at work, and it will be wisdom to examine the case from time to time to ascertain what it is and in the meantime add some medicinal treatment which will be referred to later.

*The Relative Importance of Diastolic and Systolic Readings.*—The constant load the vascular system has to carry is of first importance, and hence no matter what other information is obtained as to the arterial pressure, this should, if possible, be found. The diastolic pressure is the measure of this load and therefore should be regarded as the measure of arterial tension. It is also the most constant and indicates the load the arteries have all the time to carry and the resistance the heart has to overcome as it begins its ventricular systole. Its variations also correspond more closely to the mean pressure.

The following illustrates the constancy of the one and the variableness of the other. Three men ran a race and their systolic pressures were increased ten, eighteen and thirty-seven millimeters respectively, while the diastolic remained the same. In another race, in which the ages were thirty, thirty-five and fifty, the diastolic remained the same for ages thirty and fifty, while the man of thirty-five had his slightly lowered. Their systolic pressures were increased twenty-five, twenty and twenty-seven respectively. I saw a patient in consultation this spring with a systolic pressure of one hundred and ninety, a diastolic of ninety and the vanishing point of the pulse beat under the

stethoscope was twenty-five. I saw him again in three weeks when his health had markedly improved. His systolic pressure was two hundred and twenty-four, the diastolic ninety-five and the vanishing point twenty. Thus while the systolic increased thirty-four millimeters the diastolic had increased only five. These are not isolated examples of the constancy of the diastolic pressure as may be verified by any one.

A physician is called in consultation and takes only the systolic pressure. The excitement caused the patient by his coming may have run the systolic fifteen or twenty millimeters above that which the attending physician regularly found it; not so would this be found as to the diastolic.

Janeway cites two cases illustrating cardiac strength which also very forcibly show the value of the diastolic pressure. A man, aged twenty-six, while at rest had a systolic pressure of one hundred and thirty-five, a diastolic of one hundred and a pulse pressure of thirty-five. After running up three flights of stairs his systolic was one hundred and seventy-five, his diastolic one hundred and twenty and his pulse pressure fifty-five, showing a good cardiac strength. Another man, whose systolic pressure was one hundred and forty, diastolic one hundred and pulse pressure forty, after two minutes exercise had a systolic pressure of one hundred and fifty-five, a diastolic of one hundred and twenty-five and therefore a pulse pressure of only thirty, which shows a deficient musculature. If the systolic alone had been considered we might have thought the increase from one hundred and forty to one hundred and fifty-five indicated a better heart than that of one hundred and thirty-five to one hundred and seventy-five, but the diastolic had increased disproportionately in the latter, so giving us a lessened pulse pressure and indicating a lack of reserve vitality.

*The Gravity of High Tension.*—One very important effect of high tension is on the arteries themselves. The fibrous coat may be regarded as practically fixed in the matter of distension. Now if the tension in the blood be increased the inner coat of the vessel will be pressed outwards and as the fibrous coat is fixed the vasa vasorum will be compressed between the two coats and hence the nutrition of the vessels will be interfered with and degenerative changes will ensue, due to this lack of nutrition and the efforts of nature to overcome the abnormal tension. Also this increased tension will mean extra work for the heart. This in time will cause hypertrophy, then the normal action of the coronary vessels will be adversely affected and this will result in



degenerative changes in the heart tissue with the usual sequence of results.

If we follow this inquiry in the various systems of the body we will note similar results. Take the digestive system in big eaters, and most people eat too much. More food is taken than is required and vessels that are by nature intended to supply blood for normal conditions have in these cases not only to do so to dispose of the food required to sustain the body, but also of the excess that is being continually taken, hence a high pressure in the digestive system and to a lesser extent hypertension generally with its accompanying ill results. Such also will be the results in the vessels of the stomach when that organ has to masticate for the teeth. Long continued strain either physically or mentally gives the same sequence of events. As a corollary it will be very evident that one vessel or set of vessels will not give the story of all the vessels. One radial may be more sclerosed than the other. The vessels of the digestive system more sclerosed than those in the cerebral, or vice versa.

While high tension invariably leads to arteriosclerosis, it must not be forgotten that all cases of arteriosclerosis are not necessarily cases of high blood pressure. Rudolf, in a series of observations, states that in only about fifty per cent. of cases of well marked thickening was the pressure above normal, and that there may even be fatal cases of arteriosclerosis with the tension but little raised. Another writer states that in five hundred cases of healthy miners four hundred and sixty-nine had normal blood pressure, yet four hundred and fifty-six had palpable thickening of the arteries.

*Preventive Treatment.*—Preventive treatment is the most important and the most difficult to carry out because as a rule the physician is not consulted until the high tension has produced ill-effects. If adults were examined as a matter of routine every two or three years, especially as to blood pressure, the average length of life would be increased. Insurance companies recognize this and there is an advocacy of offering a free examination once a year to their policy holders, believing it would more than compensate the companies financially for the outlay by an average lengthening of the lives they have insured.

For example, it is noted in an individual after repeated examinations that the blood pressure is abnormally high, ten to fifteen millimeters or more above that which it should be. On investigation it may be found due to excessive use of tobacco, or that the person is eating too much, or not masticating properly,

or that the excretory organs are at fault, there is constipation with its attending results, or the skin is neglected and not kept properly cleansed, or impure air is being breathed, or there is too long continued mental or physical strain, or the high blood pressure is the result of some morbid process, and nature may be overdoing her work. By a study of the underlying causes much may be done to lessen the pressure or prevent it increasing by giving counsel as to the manner of living, regulation of exercise, lessening of the amount of food taken, limiting the proteid diet, restricting tea, coffee, and alcohol and having attention given to the proper elimination of waste products.

Toxæmic sources should be removed, as decayed teeth, pyorrhœa, chronic appendicitis, cholecystitis, prostatitis, etc.

How often some-one in the prime of life and in apparent good health dies suddenly. Probably in most of such cases there has been long continued hypertension, and had it been known the person could have been given such advice and his life so regulated that it would have been prolonged.

In some cases nature comes to our aid. Through overwork on the heart the mitral valve gives a little and there is some regurgitation, sufficient to lower the tension somewhat and so prevent the heart going on to failure or the occurrence of cerebral hæmorrhage. Thus in cases of high tension a leaky heart may act as a safety valve and not be such as to call for digitalis or other heart drugs.

*Treating Blood Pressure Medicinally.*—This is by no means an easy thing to do. It requires both skill and good judgment because in some part of the system there may be sclerosed vessels and the general pressure will have to be raised in order that sufficient blood be supplied to the diseased tissue to nourish it and enable it to do its work. A cirrhotic liver or a chronic nephritis will require much hypertension in order that these organs come at all near their proper and necessary functioning. Take a man of sixty with œdema of the lower extremities, dyspnœa on very little exertion and a systolic pressure of one hundred and sixty. He has been dieted, amount of fluids limited, has been allowed very little tea, coffee, tobacco or alcohol, and the bowels have been freely evacuated; yet there has been but little improvement. Very frequently in such a case if digitalis or strophanthus be given, the tension raised to say one hundred and eighty-one, there will be a marked improvement. Here, with high tension, sclerosed vessels, a laboring and deficient circulation, digitalis, while it

still further increases the tension, has really lessened the work of the heart; because if we take the pulse pressure and multiply it by the pulse rate we will get a criterion for the amount of work the heart does. Then take the increased pulse pressure after the drugs have shown their therapeutic effects and multiply this by the pulse rate and the product is less owing to the lower rate of pulse, therefore less work has been done, and in addition because of the lengthened diastole the heart itself has been rested, also better nourished, especially so, if it is true that the circulation in the coronary vessels is carried on mainly during diastole.

In addition to the digitalis and strophanthus there should be extra elimination. Ten to thirty grains of blue mass two or three times a week, followed in six or eight hours by a saline, will give beneficial results.

When the patient is doing well he may be given ten grains potassium nitrate, ten grains potassium bicarbonate and from three to five grains sodium nitrite in hot water or an aperient water every morning. This will have a marked benefit in keeping down the tension. As an addition to this a dose of blue mass and saline every week or two.

In the use of depressor drugs, it is well to bear in mind that they vary as to their length of action, the establishment of tolerance, and that it is not fully proven how beneficial they really are. Glonoin in grs. 1-100 acts for about an hour, and a tolerance is soon established, so that the dose has to be increased. Sodium nitrite in two grain doses lasts about six hours and there is no establishment of tolerance. Manitol nitrate, a drug I have not used, is given in grain doses and its effects last about six hours with no establishment of tolerance.

When the heart begins to fail, practically no matter how high the tension we must have recourse to the digitalis group of drugs, and our sphygmometer will aid us in noting improvement.

*Some Conclusions:—*

1. Blood pressure may vary physiologically in the same individual with wide limits.
2. It varies comparatively among individuals where we would expect it to be the same.
3. Several readings should be taken before arriving at a conclusion, and all the factors considered.
4. The diastolic reading is more important than the systolic in indicating the work the heart has to accomplish.
5. There may be arteriosclerosis and a normal pressure.



6. Preventive treatment is of first importance.
7. Attention to diet, work, rest, elimination, etc., will accomplish more than drugs and is safe ground to work upon.
8. Blood pressure, so far as findings and investigations go, is still in its infancy and no man's statements should be regarded as necessarily absolutely correct.

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## THE EARLY SIGNS OF TUBERCULOSIS

BY J. H. HOLBROOK, M.D.,

Superintendent, Mountain Sanatorium, Hamilton.

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I shall take up the early signs that are likely to be present, describing first the general signs that are apparent on observation.

First, then, there is usually about these patients a paleness or sallowness, or an absence on the cheek of the ruddy glow of health, and associated with it there is an undernourished condition proportionate in degree.

Associated with them the patient has the subjective symptoms of fatigue. Thus a patient may complain that he is tired all the time, or that he is more tired on rising than on going to bed, or that a day's work is much more fatiguing than it used to be.

Of course, some cases will cough and some will have sputum, while others will have gastric symptoms or possibly night sweats, but these are symptoms characteristic of a later stage. Again, some may come with the history of a hæmorrhage, but a hæmorrhage results from the breaking down of lung tissue (in other words suppuration), and in such a case the first symptoms have been overlooked.

Where we find a patient with these early signs, we conclude that he requires a thorough chest examination, and the first rule in making a chest examination is that the patient must have the clothing removed to the waist; while the second is that the examiner must have absolute quiet. We prefer to have the patient sitting upright on a piano stool, and have great faith in a percussion stroke, so light that the percussion sound practically disappears when we come to an area of the lung in which the air has been crowded out by the inflammatory process. Fur-

thermore, we make it a rule to proceed from resonance to dullness both in percussion and auscultation, and as the apices are usually the first parts to be involved sufficiently for a diagnosis to be made by a chest examination, this means that we must proceed from the level of the sixth or seventh dorsal vertebra upwards towards the apices and then downwards towards the bases. Of course, no rule can be given that always applies, but it is wonderful how characteristic a course pulmonary tuberculosis follows, up to the stage of suppuration.

While in the stage of suppuration the moist sounds are very characteristic, and the breathing sounds are often distant or inaudible except over a cavity, where they are decidedly bronchial, yet in this earlier stage, which may be anywhere between simple congestion and extreme consolidation, the change in the breath sounds from the normal vesicular to the bronchial is very characteristic. And, indeed, a fair prognosis as to the acuteness of the condition can in this way be arrived at, for bronchial breathing very high-pitched in character, with greatly prolonged expiration, is almost always present when there is a very acute condition in this pre-suppurative stage. A rule that we follow here is that the lung areas showing a change from the normal vesicular breathing must correspond to the areas that showed a change from the normal resonance on percussion, and in this way one step is confirmatory of the other.

I have not referred to inspection or palpation, for the reason that their value varies considerably. At this early stage there may be no depression over the diseased area and little or no lack of expansion. Some examiners are able to gain considerable information by palpating for muscle rigidity over the diseased area, the same as the surgeon would palpate over an inflamed appendix, but it is my opinion that percussion and auscultation will always be of most value in examining for early conditions in the lung.

Following such an examination we take the temperature and pulse readings, and where the condition is quite active there should be no difficulty in coming to a decision at this stage. But in a great many cases the signs will be only slight, and at the particular time of day when the examination is made the temperature may be normal. Besides, it must be remembered that no lung, once the site of pulmonary tuberculosis, ever returns to an absolutely normal condition, for tuberculosis heals by scar tissue formation, and even in our early healed case there remains slight dullness and a breath sound slightly prolonged in

expiration, though lower in pitch than where there is active trouble.

Thus, where there is doubt as to whether there is an active condition, we suspend decision and arrange to secure a four-hourly, or better, the two-hourly, temperature record of a week's duration. Where the patient is sufficiently intelligent to be able to take his own temperature we put the thermometer in his own hands.

Some will not agree with this step, but, in the treatment of the patients we try to impress upon them that success depends upon them, and that all the physician can do is to guide and co-operate with them, so we find that this is necessary later as part of the education of the patient.

Thus, the thermometer affords a means of confirming our conclusion from the physical examination. We should know whether to expect a high or low temperature record, and in the case with arrested trouble we should get a normal temperature record. Just here there is a danger of the physician accustomed to treating the acute conditions taking too light a view of a temperature record rising a little above 98.6 only once or twice each day. But it must be remembered that tuberculosis is very chronic in its course, and a slight rise each day for weeks may in the end be more serious than a daily temperature of 103 or more in an acute disease that runs its course and terminates in a week or ten days. Sometimes we find it necessary to have the patient return later at intervals of a month, and occasionally find it of value to have an X-ray taken, or to use the Von Pirquet tuberculin test. Both of these measures have the one fault, though, that they tell too much, and I feel that it is quite possible to get along without these methods if sufficient time and pains are given to the examination, and if the doubtful cases are kept under observation.



**MOBILIZATION IN MEDICINE**

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JOHN HUNTER, M.B., TORONTO.

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Were it possible, by any human method of calculation, to charge up against the authors and causes of this most diabolical of all wars, its cost to humanity in loss of life, in that most fiendish and bestial of all crimes, the outraging of innocent and defenceless women, in wanton destruction of the ancient and majestic in architecture, and of the priceless in literature and in art, the laying waste of fertile lands and of forests—debit all this carnage and destruction, all the broken hearts, the floods of tears, and the indescribable anguish,—the toll of this demoniacal cataclysm, the words would yet eternally “ring true” that there is “a Supreme Power overruling the wrath of man so as to bring good out of evil.”

Every cloud has its silver lining, and this awfully black, and ominous war-cloud is no exception. In no other equally brief period in the history of the world have so great, so momentous, and so beneficent changes taken place. The liquor traffic, which for centuries, in spite of Christian, humanitarian, and legal restrictions, has enslaved and debauched countless myriads, has received a mortal blow from which it can never recover. Henceforth liquor shall be branded as a potent factor in national degeneracy. All peoples have learned that drunkenness is a menace to efficiency, and that if men “are to be strong and of a good courage” alcohol must be abolished. Germany’s despotic militarism, with its audacious claims, has drawn a line of demarkation, between liberty and freedom, and German despotism, as plain to the civilized world as the rainbow in the sun-shower. Germany’s “mailed fist” has fixed the price that allied and neutral nations must pay for liberty and freedom. This war will make the defences of liberty and freedom so secure as never to be assailed again by any tyrant. A year ago, creed strife, industrial unrest, woman’s suffrage, were very menacing, and discordant elements of our national life. A civil war in Ireland might have brought about disastrous conditions, but when the German menace arose every discordant element was silenced, and the world saw one of the most sublime exhibitions of patriotism in its history—a galaxy of young self-governing nations, scattered all over the earth, submerging all selfish interests, and giving their best to uphold the British Empire and

all it stands for. This war has created a bond of union that the work of statesmen for decades could not have accomplished. It has given France the opportunity to regain her lost Provinces and to restore her to a "a place in the sun" amongst the nations. Russia will emerge from it with broader and far nobler conceptions of national life. Her people will be freer from gross appetites, and from many tyrannical, civil, and religious restrictions. Italy will get territory restored and be henceforth free from an unholy alliance with German despotism. Belgium's dauntless heroism will be the glory and inspiration of her people throughout the ages to come. The cruel foe will be driven out, and new homes, villages, towns and cities, larger and more beautiful, will be rebuilt, and peace and prosperity with honor be her recompense for her sacrifices in freedom's cause. This war, by menacing liberty and freedom, has created a new bond of union between the Allies and all the neutral nations, which may bring about a peace that will be founded on justice and uprightness, and therefore more enduring and beneficent.

There is another war, and in it medicine plays the most important roll, both in regard to prevention and to suppression. "This is the oldest feud of all, that between vegetable and animal existence. \* \* \* The old antagonism still prevails between microscopic forms of life. Vegetable bacteria are the worst enemies of animal life; animal microbes are the worst enemies of vegetable life." Medical men for centuries have been waging war against the enemies of health. The conflict is no less strenuous to-day than it has ever been. It is quite true that the length of the average of life has been somewhat extended, but the increase is at the two extremes,—beginning and end. In the middle, and most productive period, the mortality remains much the same, from age to age."

At the recent meeting of the Ontario Medical Association an effort was made to organize medical societies where there are now none in existence, and to mobilize these into contingents of the Provincial Society. It does seem inconceivable why there should be any district in Ontario without a medical society. There was some excuse for pioneer physicians who were far apart, and travelling difficult. Now that they are more numerous and travelling so easy and rapid, by automobile, trolley, or steam-car, there may be excuses set up, but there can be no valid reason given why every medical man in Ontario should not be a member of a local society. It is a reproach to the medical men of any community not to have a live society in their midst. It is as

true in the practise of medicine as in our social life, that it is not good for man to be alone. He owes it to himself, to his neighbors, and to his vocation, to acquire and to communicate knowledge. Only in so doing can he become efficient himself and at the same time be helpful to others.

It is not only necessary to have medical societies in every locality, but it is equally imperative that these societies should be properly mobilized. Like the individual life, it is not good for a medical society to be alone. The struggle for the prevention, and the cure or mitigation of disease, to be effective, calls for concerted action. Every great cause calls for leadership, and the capacity of men to lead can only be ascertained by competition with other men. The mobilization of all our medical societies annually would enhance the opportunities of a member of any of the societies to prove his ability to lead his fellows to new conquests over disease. A central organization made up of a large number of aggressive and progressive contingents would help to remove the stigma attached to Canadian medicine in its paucity of medical leaders. Were a stranger to visit our Dominion and ask, say, one of our High School pupils, as to the names of any leaders who have arisen since Confederation,—in politics, railway construction, business, law or in the Church, and a score of names would be given off-hand. Were the visitor a physician, or surgeon, and were he to ask a fourth or fifth year medical student as to the names of any medical men who have arisen to leadership, the only names likely to be mentioned would be those of his teachers whom the student liked best. Patients go from all over the continent to the Mayos, but in Canada the attending physician chooses his own favorite from the rank and file. In Canada no one has got far enough ahead of his comrades that they cannot catch hold of his coat-tail and pull him back into line again. What a contrast with the leadership of Lister. His contemporaries had, in the parlance of sport—"to beat it" to the scrap-heap, unload themselves of all their obsolete methods and traditions, return, "strike the trail," and "spurt for dear life" to keep in sight of their leader, much less to keep up with him. Now the absence of leadership in Canadian medicine is not due to want of intelligence, or skill, for the standard in both of these averages as high in Canada as in any other country. It is almost solely due to the paucity in the number of medical societies, the poor attendance, and lack of interest in the organizations we have.

The very existence of a nation depends on how effectively it can mobilize its troops, and all experience teaches that this can



be done most successfully when every district can furnish a company of well-trained men. The ravages of disease, and the avarice and deceitfulness of the host of illiterate and audacious quacks, disguised under the mythical titles of osteopaths, chiropractors, Christian scientists, and such like, make an imperative call for a thorough organization of the reputable practitioners throughout the whole Province. Surely there are enough aggressive men in every district to organize a medical society, in which the progressive spirit will impel its members to become contingents in a grand Provincial organization. What an impetus it would give to all progressive measures, what strength it would add, and what influence it would command if every district in Ontario had its own local medical society, and all were mobilized as contingents in a strong Provincial association, with its annual meetings. One of the most baneful influences in the practise of medicine is the lonely life led by so many medical men. Hundreds of physicians are leading now—or have passed away after having led—a treadmill-like life in loneliness and in obscurity, because they allow—or allowed—a morbid suspicion of their fellows to creep over them, and isolate them from all comradeship. This seclusion retards the progress of the individual under its influence, and may be robbing the profession of the help of those who under happier auspices would render effective service. The attrition of intelligent, honorable rivals is like the whetstone to the blade, it increases efficiency. It is one of the tragedies of medical life that so many young men—full of promise—become submerged through the isolation caused by petty jealousies, morbid fears, or avarice. Their signs are about the only evidence their fellows have of their existence. The antidote is membership in a live local society or in affiliation with the Ontario Medical Association.

**ONTARIO HEALTH OFFICERS' ASSOCIATION—  
ABSTRACT OF THE PRESIDENT'S ADDRESS \***

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BY DR. W. R. HALL, CHATHAM.

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There are about 880 Medical Officers of Health in Ontario.

These Medical Officers of Health are required, by the Public Health Act, to attend each year these conferences.

Here we gather with experts on all the different Health subjects that we are interested in. This conference, then, is a little post-graduate college course.

Before the inauguration of these conferences there was an organization, "The Ontario Health Officers' Association," a very helpful organization, the attendance on which was entirely voluntary, and only a few of the Medical Officers of Health received any pay for attendance on its meetings. The executive of that association, when selecting a place for the meeting, used to give great consideration to the idea of where they could be held to accomplish the greatest amount of good for public health, in that place, by stirring up public interest in health matters and so educating the public, i.e., they regard themselves as a sort of missionary society, and they accomplished a great and splendid work. This Association changed its place of meeting each year; but this conference, in my opinion, should not change its place or time of meeting, because its aims and objects are different. The missionary efforts of this old Association can now be done better by the District Medical Officer of Health.

As to the place of meeting, if it is not held in a central position in the province, some municipalities are put to a greater expense in attending than they should be, and have cause to be dissatisfied. The best and most central position should be selected and retained, and for outside municipalities a fixed date in each year would have many advantages.

Several years ago I urged on the old Association the benefits that I thought would accrue to enlarging the units for health work, and then expressed the opinion that any municipality with much less than fifty thousand inhabitants for a city, and twenty-five thousand for a county, was probably too small a division, or unit, for a Medical Officer of Health to devote his whole time to the work; and this he should do to succeed.

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\* Peterboro', May, 1915.

Such an officer would get the active co-operation and help of the medical practitioners in the health unit he represented, whereas in the small units, townships, towns and villages, where the Medical Officer of Health has to enter into active competition with other practitioners to gain his livelihood, he is sometimes hampered in health work, not only by that competition, but has often to contend with a jealous opposition which interferes very materially with doing good health work; and the fees paid are not generally sufficient to induce him to give his thoughts and energies to the office, unless he loves the work for the good he does through it.

In many cases, too, especially in towns and small cities, the acceptance of this office by a medical practitioner interferes very materially with his success in the practise of medicine, and for this reason it is sometimes difficult to get the best men to accept the office.

In most of the counties of Ontario, the fees now paid to the Municipal Officers of Health are sufficient or nearly so, if pooled, to pay the salary of one County Medical Officer of Health, who, if properly educated and equipped for this special work, could give much better and more efficient service to the people than the Municipal Medical Officers of Health would displace.

There are very few Medical Officers of Health in the township who give much attention to the schools in the municipality they represent, and at present public health and sanitation are very much neglected in the rural schools.

In every municipality, after food and clothing, considerations of health and education should take precedence of all others. These two lie at the foundation of all success, progress and happiness in every community. These two subjects, then, should be amply provided for in all communities, and the centre, always present, most convenient, economical and appropriate in every community, is the school-house, especially the rural school-house; indeed in these communities it is often the only centre available, and as it is vacant seven nights and two days each week a part of this time could and should be utilized in teaching all the people in the section how to live right. This work might very properly form part of the duties of a County Health Officer, who also, of course, would have medical supervision over all the schools in his county.

And working in accord with this idea, villages, towns and small cities could appoint to great advantage, as sanitary officers,



trained nurses, giving their whole time to these duties and that of school nurse under the direction of the County Medical Officer of Health.

Objection may be urged that the work could not be thoroughly done by one nurse in each municipality; yet when we consider that none of this very important work is being done now, how much better it would be to do a large part of it than leave it all undone!

Parents twenty-five years ago often sent their children from cities to the country schools, for their health and physical development; they do not do it now, because the city schools are beating the country schools in all points respecting health and physical development.

Managers of the city schools are giving attention to these matters and spending money wisely to engage medical, dental and other expert inspectors and directors, as well as school nurses, and accessories such as playgrounds and their furnishings.

All these things are beyond the rural schools, but the occasional visit of a Medical Inspector, and the more frequent visits of a school nurse, would do much to improve the conditions.

In proof of the statement that country schools are falling behind city schools, I quote in part a report made by Dr. T. D. Wood, of Columbia.

"That less than 1 per cent. of city children show signs of pulmonary disease, against 3.7 per cent. of country children; 23.3 per cent of city children suffer from malnutrition, against 31.2 per cent. of country children; 5.1 per cent. of city children show defective vision against 21.08 per cent. of country children, and so on down the line." This condition is partly due to home conditions, but largely to the lack of adequate medical inspection and the insanitary condition of school-houses. He further states: "Seating accommodations are so bad that it is small wonder that we found 3.5 per cent. of the country children with spinal curvature, as against .13 per cent. of the city school children with the same defect."

The conditions of rural schools require that some very urgent and earnest efforts be made in their behalf.

#### THE WAR.

The war is a very vital question from our standpoint; even the success of armies is dependent on the health and physical fitness of the soldiers that engage in it.

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It is a well-recognized fact now, that the armies engaged in all the past great wars have suffered greater losses in life and efficiency from preventable causes, than from all their efforts to annihilate one another by force of arms.

We are not only justified in approaching the question from this standpoint, but also to join with all lovers of peace and concord—the promoters of human happiness and progress—in their evolution upwards, and inquire why the war ever occurred.

There appears to be no reason to justify the war. It is therefore outside the bounds of reason; it is an insanity, and never should have occurred, any more than a single case of typhoid fever, the causes leading up to each being preventable ones.

The war from our standpoint is an insanity; Austria and Germany are insane nations. The insanity of a nation concerns not only a community, society or family, but is a world question; the whole community of nations and powers is affected by it, and if they were well organized for meeting such patients, they could quickly do so; so quickly and effectually would a war be stopped that probably not one nation would be injured.

Every right-thinking nation, on the face of the earth must to my mind realize that Germany and Austria are insane, and should, in the interests of sanity and world's progress, actively co-operate in treating with force, restraint or otherwise, their insane brothers in the community of nations.

Individuals are often driven to insanity by their environments, or other circumstances; so, too, are nations. It is said that Germany was overcrowded. Overcrowding in this world has often been treated in this way, and has often been relieved by terrible, decimating, cruel and bloody wars.

And this war will give relief to overcrowding, but not a sane, sensible, economic relief. The individuals destroyed do not belong to the classes that can best be spared, but are nearly all males, are all of industrial age, are all physically fit, nearest perfection in body and mind, the most valuable male members of the nation, the very ones that can't be spared without great mental and physical deterioration to the nations.

Overcrowding is an evil, it leads to poverty and want, it leads to unhealthy and unnatural competitions, it cripples ambition and interferes with individual efforts. Again, if the people are so numerous they are crowding one another, should the mothers be allowed to suffer the pangs of labor, and parents nurse, nurture and educate their sons for useful occupations in

this world, only to see all their pains, care and expense sacrificed, their love and affection for their children count for nothing as compared with some national ambition, to have them regarded only as chattels existing for the good of the state?

Is this the way to relieve overcrowding? No; much better they were never born than to have lived for such base purposes.

If war is not the remedy for overcrowding or over-populating—which is the same thing—a remedy should be found and the over-populating cease.

The great majority of children born into the world are born without the design, desire, or wish of their parents, and often contrary to their desires, their financial interests and their general welfare. They are, then, the results of accident and not design, these children who are ushered into the world undesired, thrust upon parents unwillingly, because in many cases they are unable to properly care for them, even feed and clothe and place them in positions to compete with others born under more favorable conditions. A few succeed and overcome all the obstacles to their success, but probably it would be better for them and their parents and everybody else had they never been born.

These statements sound shocking even to me as I make them, and yet the current of human events of late warrants further investigation along these lines, the great desideratum for man being happiness in this life in his upward evolution toward God.

Several plans for keeping population within reasonable bounds have been suggested, some legal and others not.

Control of the birth-rate unfortunately is only possible among the more intelligent and desirable citizens, the unfits and undesirables being uncontrollable, though other methods could be used to control a high birth-rate in these classes, although there is not at present any legal warrant to practise them in abortion and unsexing.

At the present day it may be said that the principle of the voluntary control of procreation, not for the selfish ends of the individual, but in order to extinguish disease, to limit human misery and to raise the general level of humanity, by substituting the ideal of quality for the vulgar ideal of mere quantity, is now generally accepted, alike by the medical pathologists, embryologists and neurologists, and by sociologists and moralists.

Before the Christian age the old Roman law decreed that the



soul was only acquired at birth, and abortion with the Romans and most ancients was not considered a crime.

With us, if life is destroyed before birth it is a crime known as fœticide or abortion and is punishable.

The medical profession interferes only when the life of the mother would be jeopardized by allowing the pregnancy to go on to full term.

Ballantyne states the case concisely: "The mother's life has a value, because she is what she is, while the fœtus only has a possible value on account of what it may become."

Abortion is a very common crime, and, unlike other crimes, it is more common in civilized and progressive countries.

A State Committee from the State of Michigan in 1881 reported that they discovered that seventeen abortions occurred in the state to each one hundred births, and added that probably as many more occurred but escaped their means of observation.

It is said that in New York only one in every thousand abortions is discovered. Dr. J. F. Scott (Sexual Instinct) says that in America the custom of procuring abortion has to-day reached such proportions as to be almost beyond belief, while countless thousands of cases are never reported.

The laws to regulate abortion in the United States have been pronounced a failure and have worked much mischief; the people are not in accord with them, and they should be changed in the interests, especially, of womankind.

Hitherto this question has been in the hands entirely of men, yet is mainly a woman's question, and of late it has been taken up actively by women, most of whom insist that the fœtus is not yet an independent human being, and that every woman, by virtue of the right over her own body, is entitled to decide whether it shall become an independent human being.

If woman, freed from the intimidation of Church, and the ambitions of State, had an equal part in making laws, especially those that affect them indirectly, child-bearing, the laws regulating abortion and sexual crimes would be very different and overcrowding by over-populating the world a thing not to be feared.

**TUBERCULOSIS PROBLEMS FROM A PUBLIC HEALTH STANDPOINT**

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The success of all anti-tuberculosis work depends largely upon the education of the public. One of the difficulties with which we are faced lies in the diversity of ways in which the subject is presented. The laity are prone to become confused and form erroneous impressions from the statements of enthusiastic workers who emphasize personal hobbies. We must have all-around co-ordinate pictures to present to the public and leave controversy to scientific circles.

There is at the present time a very apparent lack of knowledge of the Public Health Regulations with regard to the control of tuberculosis. While every layman understands that the handling of the common contagious diseases comes under strict legal regulations, few seem to have grasped the fact that tuberculous patients are also subject to restrictions. There is little use of our having health laws, if these laws are to be left in obscurity. Were the regulations regarding the care of tuberculosis strictly enforced in this Province at the present time, I venture to say that there are few physicians who would not be eligible for prosecution through ignorance or neglect of the Public Health Act. We must have some means of bringing the health regulations to the notice of the medical profession and the public. The people must understand that the restrictions called for are for their benefit and not an imposition to be avoided if possible. One might suggest that the local medical societies be required to hold annually or semi-annually meetings at which the public health regulations should be read and discussed, and that the physicians be required to attend these meetings. In fact, it might be well to have a representative of the Department address such gatherings, laying peculiar stress upon important points. The Provincial Medical Council could greatly assist by requiring that every medical man, before obtaining a license to practise in the Province, should have a sound knowledge of the public health regulations. The graduating classes in our medical schools should be thoroughly instructed in this regard. The public may be reached by means of the press, churches, schools, public lectures and exhibitions. The visiting nurse and dispensary are a very useful means of disseminating instructions. There is no excuse for ignorance of the Health Act, and it is well-nigh time the public understood that the

modern Medical Officer of Health is not merely an inspector of back yards, but a qualified Government representative with power to enforce the Health Regulations.

The Medical Officer of Health has the same right to insist that the physicians notify of tuberculosis as that they notify of cases of the common contagious disease of smallpox.

The early recognition of tuberculosis is a problem which is of greatest importance, not only in so far as the individual patient is concerned, but in its relation to the public welfare.

How are we to find these cases in the early stages before there has been a breaking down of body tissue and a discharge of the infecting bacillus in the excreta? Firstly, by insisting upon more thoroughness on the part of the physicians and secondly by the examination of contacts and those otherwise exposed to infection.

Tuberculosis is now recognized to be a disease of housing and living conditions. The contaminated house is one of the greatest sources of infection and one to which a large percentage of our people are exposed. We hear with horror of the "lung blocks" in large cities such as New York, and yet these same conditions exist here, not only in our cities and towns, but as well in our country districts.

Owing to the communicability of tuberculosis and the obscure nature of the disease, it is well-nigh time that measures were taken to ensure the health of employees in bakeshops, confectioneries, meat markets, restaurants and all establishments where foodstuffs are manufactured or sold. A compulsory physical examination of all such persons at stated intervals would be a great step in the right direction. Such a regulation is not only a necessity for the protection of the public, but would be of great advantage both to employer and employee.

The problem of the tuberculous immigrant is one which has no doubt appealed to every municipality. Many tuberculous persons in all stages, even the far advanced, have entered the country and have either become public charities or have been deported. The fault does not necessarily lie with the medical examiners at the port of entry but is found in the present system. Were these persons examined and passed by the department before leaving their homes, an opportunity for more thorough observation by the physicians would be given and the hardships of deportation largely done away with. We do not know what changes will result following the war, but whatever these readjustments may be, let us hope for a vast improvement in the present immigration system.



## Selected Articles

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### HISTORICAL SYPHILIS

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By HERBERT SCHOENRICH, M.D., BALTIMORE, MD.

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When we look over the vast amount of medical literature, we will find volumes devoted to this fascinating subject, thousands of opinions expressed by ardent investigators, many observers possessing reasonable proofs of their views, and yet the reader is unable to find absolutely conclusive evidence and after all is left to draw his own conclusions and beliefs. I almost feel as though an apology is due in presenting a paper of this kind, yet, however, when we consider the enormous amount of study required by the medical student to-day and the enormous amount of reading necessary for the physician even to keep partially abreast with the rapid progress of medical literature and science, we find that one is rarely ever able to avail himself the time to wander back into remote literary paths and peruse occurrences of the dark ages of history.

For many years the three venereal affections, syphilis, venereal ulcer, and gonorrhœa, were not clearly differentiated, but were thought to be fundamentally the same. Syphilis was regarded as resulting from gonorrhœa, and venereal ulcer a concomitant of either. Not until the time of Ricord (beginning of the second half of the nineteenth century), were they differentiated as independent maladies.

It would occupy too much space to enumerate all the theories, hypotheses, superstitions and fantastic conceptions which have been associated with the origin of syphilis, but suffice it to say in this connection that God, man, and beast have been successively saddled with the responsibility for the scourge, and even the planets have been looked upon as the astrological superstition current in the science of the respective age.

Whether syphilis had always existed in the Old World, or whether it had its origin in America and brought over to European territory by the crew of Columbus, has many advocates both *pro* and *con*. It is not within the scope of this paper to enter into any argument pertaining to this much mooted question, nor to examine the references on this subject critically,

but only to present in a concise manner a brief *résumé* of extracts appearing on the history of syphilis.

Discussions will naturally arise regarding the nature of the maladies of distant ages and distant regions and their relations to syphilis. With the history of almost every country is connected the name of some plague or malignant disease. In Ceylon we find "parangi"; West Indies and West Africa, "yaws"; in Scotland and Ireland, "sibbons" and "button scurvy." All have in common that the skin eruption is a fungating one, and many writers regard them all now as "yaws." The dark races especially have a great tendency to a framæsi-form eruption, i.e., papular hypertrophy; whereas Europeans are more susceptible to ulcerous inflammation. Yaws is closely related to syphilis. It is unquestionably due to a micro-organism, although its exact nature has not been definitely settled upon. In the lesions have been found bacilli, cocci, spirochetæ and yeast. Hutchinson believes it to be syphilis modified by unknown conditions.

*Ancient Syphilis.*—It was the late Professor J. Parrot, of the faculty of Medicine of Paris, who first attempted to prove that venereal diseases were in existence during the Stone Age. To quote Buret: "Without permitting himself to be daunted by the incredulous smiles of some, or the lively sallies of others, Parrot maintained his position before and against all, and thanks to him, prehistoric syphilis has left no doubts except in the hands of the intractable. It is really painful to see the convictions of thirty or forty years overthrown by material proofs which are not as easy to refute as more or less obscure tests. Few minds, even of a superior order, consent to burn their idols, and for want of arguments they quibble, but do not surrender." In Solutre, a locality in the department of Saône-et-Loire, France, have been unearthed all sorts of proofs of prehistoric habitation. Buret says that human *debris* of Solutre appears to belong to a race coming from Asia. Among other things excavated was a female skeleton showing traces of syphilis; according to anthropological authorities, this skeleton is from the Stone Age, the period of primitive man.

In his chapter on "Syphilis Among the Chinese, etc.," Buret quotes Captain Dabry, who published a very complete work on China, from a medical point of view. It is learned here that the first Emperor of China, of whom any information can be had, was Chin-nong, who lived 3,216 years before Christ. Later lived Hoang-ty, a thousand years

after Chin-nong. At a period not so remote, existed the dynasty of Tchou, which began in 1222 B.C. The Emperor Hoang-ty, with commendable interest in the welfare of his subjects, ordered all information bearing on medical matters to be reduced to writing, and in the year 2637 B.C. this was done.

Thus at the time when Europeans were living in savagery the Chinese nation was using its every effort to advance the cause of science. All of the documents collected at this Emperor's instance, were incorporated in the celebrated Chinese treatise bearing the name of *Hoang-ty-mi-king*, or medical treatise of Hoang-ty. This treatise dwells on venereal diseases, drawing fairly accurate clinical pictures of gonorrhœa and syphilis. Chancre is here described as appearing at the point of inoculation, subsequently the poison spreading through the entire blood. Bubo, so frequently accompanying chancroid; secondary manifestations of lues, and the fact that syphilis can be transmitted from one patient to another, and from parent to child, are also referred to.

In those days, antedating the Christian era by several thousand years, the Chinese employed for therapeutic purposes such agents as carbonate of soda, sulphate of iron, sulphur and mercury.

If we accept this treatise as authentic, then we must believe that more than 4,500 years ago the Chinese had reduced to writing descriptions of syphilitic lesions as well as the best treatment for the disease.

*Syphilis in Egypt.*—Evidence of syphilis is said also to have been found in ancient Egypt, although here but meagre information is obtainable. The worship of Phallus, with a history of licentiousness and debauchery, Egypt certainly did not escape the scourge. In their documents (Ebers Papyrus) is mentioned a disease affecting the extremities, joints, eyes, and also the medical treatment, including superstitious mystical formulas.

*Biblical Syphilis.*—That reference is made to venereal diseases in biblical times is generally admitted. Among the writers who have made a critical study of the Bible in connection with venereal diseases may be mentioned Rosenbaum, Dufour, Villemont, and others. The first reference to gonorrhœa to be found is in one of the Mosaic laws (Lev. 15: 2, 3): "Speak unto the children of Israel, and say unto them, When any man hath a running issue out of his flesh, because of this issue, he is unclean. And this shall be the uncleanness of his



issue: whether his flesh run with his issue, or his flesh be stopped from his issue, it is his uncleanness." In the fifth chapter of Proverbs we find the following: "Keep thy way farre from her, and come not near the doore of her house, lest thou give thine honour unto others, and thy years to the cruell, and thou mourn at thine end when thou hast consumed thy flesh and thy body." This, according to Buret, refers to syphilis. He quotes Scripture in a number of instances which seem to point clearly to venereal diseases and their disastrous results. However, since the book is a medley of history and legend, the evidence of syphilis found in the Bible must of necessity be vague; also the words used to denote diseases mainly refer to plague and leprosy.

In the hunt for information bearing on ancient syphilis, one is impressed with the licentiousness and absolute depravity of the peoples who made early history, and a comparison of their morals with those of modern nations is not entirely in favor of the former, even though we are tending to a more and more liberal interpretation of the moral laws. Immorality was rampant, and bestial practices common. Among the Hebrews, certain regulations favored the spread of venereal contagion. Prostitution among them being prohibited, they resorted to strange women—women without religion. Thus they visited the Midianites and the daughters of Moab. It was the latter who initiated the Jews into the worship of Baal Peor, which, according to Rosenbaum, signified the god Penis, the Priapus of the Greeks. The temples where such worship was held were given over to the most revolting licentiousness. Here orgies of the most vicious sort were indulged in. They were veritable pest spots, the breeding places of venereal diseases. Such unbridled immorality is always favorable to the propagation and spread of loathsome diseases, and, in this instance, infections originating in the worship of Baal Peor were truly an epidemic of the most terrifying proportions and, in truth, became known as the plague of Baal Peor. In time, venereal diseases became so prevalent that, to stem its progress, all men who had visited the daughters of Moab were killed at Jehovah's command. He said: "To appease my anger, let each chief of the tribes sacrifice those of his tribe who have gone over to Baal Peor." The Bible tells us that finally the plague was stamped out after 24,000 lives had been sacrificed. This is supposed to have occurred in the year 1451 B.C. However, the terrible lesson was soon forgotten, for, later, worship of Baal Peor again

commenced. Then war was declared against Midianites because they had seduced the sons of Israel. This was conducted with orders to kill all males and those women who had known men carnally; female children and young virgins alone were excepted.

*Syphilis Among the Hindoos.*—Similarly as the Jews worshipped Baal Peor, the Hindoos prayed to their idol Lingam. It is in their collection of religious, literary and scientific works—the Vedas—that we shall find much of more than passing interest. A poem, a book, a tablet, a temple, anything that bridges the gap between the present and the days of old, holds us with entrancing wonder.

The worship of Lingam, as practised by the Hindoos, was a sex worship, so common with the early nations, and in our eyes but very little removed from gross immorality. Their worship and prostitution dove-tailed into each other so intimately that the one can scarcely be considered without the other.

Dufour has divided the "oldest of traffics" into hospitable, religious, and legal or political prostitution. In whatsoever land where prostitution flourishes and becomes one of its institutions there we find venereal disease in all of its distressing forms. It is inconceivable that unrestrained sensuousness could exist without its usual concomitant—syphilis—manifesting itself in a marked degree.

Just as among the early Jews the worship of Baal Peor was nothing but the rankest prostitution, so likewise, on the other side of Asia the so-called Worship of Lingam degenerated into the wickedest of sensual practices. Custom required young girls to offer their virginity on the altar of Lingam, and since this idol could not descend from his stand and take the offering so innocently tendered, it was done by proxy, the priests of the temple performing the duty, a task that in all probability was to their liking. At any rate we can readily believe that there was never a dearth of priests on hand to perform the function. Since these Hindoos were a voluptuous people it does not require any great strength of imagination to believe that virgins were not the only class of women who sacrificed their charms at Lingam's altar.

Thus we can readily see that temples of Lingam became bawdy houses and venereal infection must have become common among the priestly attendants. Each one was probably a live focus of infection. Buret quotes Rosenbaum, who says: "In antiquity, like to-day among savage nations the menstrual

blood, like that which flows as the result of defloration through the rupture of the hymen, and the act itself, were considered unclean. The dwellers on the coast who had more frequent relations with strangers, abandoned the act of defloration to the latter; in the interior priests discharged this task for the people of quality." The point of value in these references is, that with such looseness of morals, venereal disease—gonorrhœa and syphilis—must have existed to a most alarming degree. If such holds good with us, we who pride ourselves on our superior civilization and knowledge, what must have been the conditions, from a venereal standpoint, among nations whose moral sense was so blunted as to sanction such promiscuous relations?

*Syphilis of Ancient Rome and Greece.*—In ancient Roman and Greek writings but the barest references are made to morbid processes which might be accepted as manifestations of venereal affection. These writings are so vague that a critical mind would be almost at a loss to find convincing evidence of syphilis as occurring in antiquity among these peoples.

In Juvenal there may be found an allusion or two which relates to "some disgusting disease," which seems to bear a slight resemblance to syphilis. Celsus, while mentioning diseases of the generative organs, does not clearly ascribe them to impure relations. This latter author approaches the subject of private diseases with a feeling of fastidiousness which prompts him to offer apologies for discussing the subject at all. Celsus describes a condition affecting the male organ which he calls *inflammatio colis*; from the picture he draws it is said to refer to phimosis. He also wrote of what he called *elephantiasis*, and some syphilographers of subsequent periods, even down to this present day have seen in his descriptions of this disorder a similarity to some of the graver manifestations of syphilis.

In view of the well authenticated corruption of the Roman Empire, a state of affairs permeating every stratum of society, from royal circles down to the most humble grades, it is almost inconceivable that the immorality of the period was not marked by widespread venereal infection, and it must ever remain an inexplicable mystery why the early Roman and Greek literature contain such a paucity of references to venereal diseases.

*Syphilis in the Western Hemisphere.*—That syphilis existed in the Western Hemisphere in pre-Columbian times is agreed to by the majority. Tracés of the disease have been observed in parts of South America, especially in the archi-



pelago of the Antilles; in Mexico, where it played a part of the Mexican myths; and, according to Joseph Jones, pre-historic bones showing distinct traces of syphilis have been discovered in the mounds and graves of Tennessee.

As an illustration of the divergence of opinion Murillo Velande believes that the disease was carried to Continental America from Spain, saying that in these countries (America) it was not known prior to the coming of the Spaniards. With syphilis in Mexico is connected the name of Father Sahagun, who came to Spain eight years subsequent to the Spanish conquest, and who gathered his knowledge directly from the natives.

Natives dying a natural death were cremated and went to the realms of Mictlantecatl; those dying of syphilis went to Tlalocan and were buried. Syphilitics were not honored by cremation, so they were not deemed worthy for religious sacrifices. Slaves in the market of Azcaputzalco and Jzocan who were afflicted with syphilis were not bought for religious sacrifices. "Syphilitics" and "lepers" are especially mentioned as dancing around the statue of Tlaloc, at the every eighth year festival. These dancers were masked as animals, birds and sick men. The Mexicans, according to their superstition believed syphilis to be a punishment of the gods, for neglect to perform certain religious rites. Those who did not take the festival bath for forgiveness of sins were threatened by the priests with syphilis, or some other disease from the gods.

Syphilis was considered as a punishment sent to lustful men by the god Tezcatlipoco (who presided over diseases), for not restraining their passions preceding the religious festivals. Women were punished with syphilis by another god, for tolerating the embraces of men during the festival of Xicomexachitli.

The disease also prevailed on the Isthmus, and Haiti; and according to Oviedo and Las Casas, distinct secondary and tertiary manifestations were common on the natives of these countries as well as Mexico.

Peruvian history is most fascinating. The Incan and pre-Incan civilization, dated back thousands of years, offers most interesting reading. My brother, who has just returned from an extended journey through South America, brought me an Incan skull showing the now extinct Inca bone. However, as we are only interested in syphilis in connection with Peru, I may say that it seems as though this malady had a somewhat later origin in this country. Several chronic wasting diseases are described, mutilating mostly the nose and upper lip. The

most prevalent disease was Uta, possibly combined with syphilis, symbolic representations of their symptoms being seen on the famous Peruvian potteries. The argument has been advanced that syphilis first originated in Asia in the most remote ages, and that the primitive populations brought it to America by way of Behring Strait, and when Alaska, by means of the Aleutian peninsula was still connected to Siberia. Ashmead disproves this theory by pointing out the absence of evidence in Alaska of any migration from Asia to America. He asks: "Must we believe, then, that because in China, in Japan, or in Persia, and among the Jews everywhere, we find vestiges of this disease as having existed in most remote times, that we therefore must admit that syphilis came to America by contact with all those people?" When we study the question of possible contact between the New World and Asia, we find that there is no evidence whatever to make us believe that there was a migration of man from China to America.

The musical instruments of the New World had various forms of whistles, flutes, rattles, spit-bells, and drums, made with human as well as animal skins, but we seek in vain for a stringed instrument of any kind. In Japan evidence of stringed instruments runs back to the third or fourth century of our era; and in China, the *Kin* (five strings), and *Seik* (thirteen strings), were known a thousand years before Christ. They were played in the temples of worship, at religious rites, times of offering, etc. Furthermore, in China, 1100 B.C., there were carriages constructed for ceremonial usages.

If from this early date in China, down to the fifth century A.D., five hundred years before the Incas Empire began, any people from China had found their way hither, one wonders why the wheel was not introduced. One would also think that leprosy, which dates back to time immemorial, as well as syphilis would have accompanied the migration hither. But to avoid historical controversy, is it not more reasonable to believe that the same fount which produced syphilis in the most ancient human races, of Africa, of China, of Chaldea, etc., produced it also in America? It has been intimated the possibility of it originating the same everywhere perhaps by bestial practices.

*Modern Syphilis.*—The terrible epidemic of the fifteenth century was an epoch-making event in history. Charles VIII, in his wars to gain Naples from the Spaniards, drew down unspeakable miseries upon the wretched Italians. His armies are reputed to have indulged in every excess of unbridled license

and rapine; and it was during the siege of Naples that the venereal disease broke out epidemically.

It was here, according to some writers, that syphilis first made its appearance. Its frightful ravages and disgusting character immediately gave rise to the belief that it was a new scourge, sent especially as a punishment for the debauchery and prostitution of the period, each party charging the other with having introduced it. No class seems to have been exempt from it. As generally happens with new diseases, whether from fear or ignorance of the means to control them, it was represented that the affliction was of a malignancy never before known. The disease spread rapidly throughout Italy. Italian chronicles enable one to follow its triumphal march; everywhere the well known dates 1494-1495 are given. By June, 1495, syphilis had already penetrated to the northern-most part of the Appenine peninsula, to the borders of France, Switzerland and Germany.

The first authentic allusion to the disease in France is the ordinance of the Parliament of Paris, dated 1497, ordering all persons attacked by the "large pox" to vacate the city within twenty-four hours, and not to return till they were cured; this provided a sort of hospital for those who could not move, and appointed agents to bestow four *sols parisis* on the exiles to pay for their journey.

Fracastor, in his essay, describes the pathetic picture of the wretched victims so affected. At first they were left to the tender mercies of quacks, charlatans, barbers and old women, but, at the beginning of the sixteenth century, the extent of the mischief provoked sympathy from the physicians, who, at first refused to treat patients assailed by this new plague, and soon after treatises appeared on the subject. After the passage of the law in 1497, a house was given over to the reception of victims of syphilis, but little was done in the attempt to cure them. They were left to die, or to quack themselves. Conditions were horrible and not for many years afterwards and only after Parliament interfered, was improvement established.

The disease spread rapidly into England and Scotland; according to Grunpeck, English soldiers, fighting in Italy as mercenaries, acquired syphilis there and brought it to their countries. King James became highly interested in this apparently new ailment, and offered free treatment to the unfortunates so afflicted. Its malignancy became more and more noticeable, and in a comparatively short time hundreds were victims.



In an effort to check this terrible spread, on September 22, 1498, James IV. published a decree ordering all persons suffering from syphilis to leave Edinburgh. They were taken to an isolated spot (island opposite Leith,) and there treated. The punishment of being "branded on the face" was inflicted on those found in town.

Simultaneously, outbreaks were observed in Africa and in China, brought there by the Portuguese; and, in fact, it is a question whether there is a spot on our terrestrial sphere which has ever escaped.

The fact that the disease was observed and had rapidly extended over Europe at about the time when Columbus returned from his first expedition to the New World, inspired the belief that his companions and the few Indians whom he took with him, were the introducers to the Old World of the terrible evil. There being little known of this disease's nature, or even of its objective manifestations, at this epoch, when the mysterious and the supernatural had great acceptance, and since its contagiousness was so exaggerated it was believed to be a divine punishment, a real pest of the style of the black plague, which earlier had originated in the Orient and had desolated Europe long before in 1348, and therefore it was thought that this newer one, like the other, must have come from some other world. This belief, and the recent discovery of America were facts readily associated by the popular mind, and hence America was accepted as the nationality of the new disease.

Fracastor pointed out, as reason for not admitting its American origin, among other things, the difficulty of accepting the proposition that so few individuals as had accompanied Columbus could have been the only sources for an infection which spread so rapidly in so many countries at the same time. For syphilis appeared simultaneously or nearly so, in Italy, Spain, France and Germany. And this one fact made it difficult for him to think that such a small number of Indians (all of whom could certainly not have been syphilitic) had infected, in such a short time, those different populations. To explain this, the partisans of the belief in an American origin of syphilis appealed to the fact of the existence in Italy at the very time that the disease was brought there, of armies of Spaniards, and of Frenchmen, besides mercenary bands of considerable strength accompanied by a great following of women all who afforded a most favorable opportunity for an epidemic outbreak, thus spreading the disease there, and transporting it on their return home to their respective countries.

Iwan Bloch who upholds the recent origin of syphilis bases his reasons therefor, that the available information bearing on its antiquity is unreliable, and that many of the bones unearthed claimed to be luetic were rachite, others arthritis deformans, and those which were truly syphilitic, dated after the end of the fifteenth century. Moreover, syphilis is always most virulent on virgin soil, hence the epidemic in Europe when the poison was brought over and the sudden appearance at that time, together with the absolute ignorance prevailing among the people affected. Again, at the time of Columbus's arrival in America, the Indians were already in possession of complicated methods of its cure, consisting of guaiacum, and other vegetables, beverages, hydrotherapy and dietetic measures. The opponents of Bloch's views regarding the "Virgin soil" theory of Europe, maintain that pre-historic and ancient syphilis produced a general immunity which lasted for centuries but which became materially lessened at the time of the fifteenth century.

I may say that I am indebted for my information on this subject which I have freely consulted, in several instances, using the exact phraseology, to the following sources:

(1) Historical columns of the *Urologic and Cutaneous Review*.

(2) System of Syphilis, D'Archy Powers and Murphy.

(3) Marshall, Treatise on Syphilis.

(4) Sanger, History of Prostitution.

(5) Albert S. Ashmead's contributions to the *Urologic and Cutaneous Review*.

(6) Buret, on Ancient and Pre-historic Syphilis.—*The Urologic and Cutaneous Review*.

## Editorials.

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### MEDICAL RECIPROCITY

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Probably the most important act at the meeting of the Ontario Medical Council was the adoption of a regulation providing for reciprocity in registration with the General Medical Council of Great Britain.

It is generally considered a very happy solution of a problem which has been much discussed during the past thirty years or more. The chief aim in establishing a medical council in this Province was to uphold and uplift the status of the medical profession. For many years the Council objected to reciprocity with other provinces and other parts of the British Empire, including Great Britain.

There was for a time good reason for such objections. The standing in Ontario was for many years much higher than that in any other part of Canada. It was also higher than that involved in many of the qualifications to practice given in Great Britain. However, it happens that all these unpleasant features have been remedied. We have now a Central Council which can grant a license to practice in any part of Canada. There is a General Medical Council in Great Britain which has done away with evils connected with cheap qualifications. Therefore as to lowering the standard we have nothing to fear so far as either Canada or Great Britain is concerned.

It unfortunately happened that some of our doctors held rather a narrow view, and feared that the admission of qualified practitioners from Great Britain might injure the chances of our own gradu-



ates; that is to say, they feared that more British physicians would settle in Canada than we were likely to furnish for the British Isles. Narrow views have existed elsewhere, as history tells us: for instance, when Lord Lister was in Toronto he told us that when he was young, "A man who was educated in medicine in Scotland, and held the best Scottish degree of M.D., was not allowed to practise on that qualification south of the Tweed; that is, any doctor educated in Scotland was not allowed to practise in England."

It is pleasant to consider that there is such a wonderful improvement in matters, and we may now feel thankful in the border counties of Quebec and Ontario that a man now practising in the centre of Ottawa is allowed to cross the River Ottawa and treat a patient in Hull without being under prosecution.

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### THE MEDICAL HEALTH OFFICERS' ASSOCIATION

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We are glad to publish in this issue a portion of the able and interesting address delivered by the President, Dr. W. R. Hall, of Chatham, at the meeting in Peterborough, May 25th.

Among other things he advocated strongly the appointment of County Medical Officers of Health. Dr. Hall does not pretend that this is a new suggestion, because as a matter of fact he and many others have urged such a procedure for many years. He says that in most of the counties the various fees paid to the Municipal Officers of Health, are sufficient, or nearly so. If they were well and properly equipped, they could give much more efficient service to the citizens than those physicians whom they would displace. Dr. Hall also states that very few Medical

Officers of Health give much attention to the Public Schools, and the public health and sanitation are much neglected in the schools of the rural districts.

It was probably noticed by those who took enough interest in our Ontario Medical Council to read the report of its proceedings in both the lay and medical press that that body during its session expressed a similar opinion.

Dr. Hall also referred to the fact that the Association changed its place of meeting this year, and he expresses the opinion that such change of place should not be. He thinks the place of meeting should be in a central position in the Province, and that such location would be fair for all the municipalities. We presume that he thinks Toronto should be the place of meeting, and that if possible there should be a fixed date for every year.

As is well known, we have always held the opinion that changes in the places of meeting for the Ontario Medical Association are good. With the Health Officers' Association, however, there are many different features, and we are told that the majority would prefer to have the meetings held as near as possible to the headquarters of the Provincial Medical Board.

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### CANCER.

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The *New York Medical Journal* in its issue of July 3rd was devoted entirely, so far as its original communications were concerned, to cancer. It contains in all thirteen papers on the subject, as follows: Cancer of the Mouth, Dr. Robert Abbe, New York; The Cancer Patient's Dilemma, Dr. W. S. Bain-

bridge, New York; Surgery for Carcinoma of the Stomach, Dr. Dean, Philadelphia; The Incision of Tumors for Diagnosis, Dr. Ewing, New York; Cancer in Relation to Body Elimination, Dr. Duncan Bulkley, New York; Cancer of the Skin, by Dr. S. Pollitzer, New York; Uterine Carcinoma Treated by Radium, Dr. W. S. Newcomet, Philadelphia; Cancer of the Upper Air Tract (Special Treatment with Radium), Dr. W. Freudenthal, New York; Cancer of the Gastro-intestinal Tract, Dr. L. G. Cole, New York; Cancer of the Bladder and Kidneys, Dr. Pedersen, New York; The Treatment of Epithelioma by Modern Radiation, Dr. R. H. Boggs; Cancer of the Female Breast, Dr. W. B. Snow, New York; Some Comments on a New Antiserum for Cancer, Dr. W. N. Berkeley, New York.

This long symposium constitutes one of the best lot if not the best lot of papers we have ever seen on the subject. One may ask can the profession tell us anything new on cancer that is likely to produce any great results as to prevention and treatment. We cannot see that one word has recently or at any time produced beneficial results that can be considered startling. However, if we look back over thirty years we can readily recognize the fact that we know now much about the cause, prevention, diagnosis and treatment of cancer, which the physicians who lived before 1885 had no knowledge of.

Since the above was written we have learned with very much interest that a large number of the other medical journals of North America have published what they call special cancer numbers and we understand many if not all are admirable, as one would expect in looking over the list of medical journals who are engaged in this good work.



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WAR ITEMS

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We were informed by cablegram, July 5th., that what was considered a "signal honor" was conferred on Dr. G. G. Nasmith—who had charge of Toronto's Civic Laboratories before he went to the war—in recognition of the excellence of his work. His laboratory will now take charge of the hygienic work including examination of the drinking water of the whole First Army Corps and the Bacteriological work for the Indian Corps.

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Dr. William M. Hart (Capt.), of the Army Medical Corps, Winnipeg, tells us that he is the only Canadian who has gone to Berlin and come back since the war began. While looking after the wounded in the Battle of Ypres, he was taken prisoner, and sent to an internment camp at Minz; afterwards he was sent to Danholm, a small island in the Baltic. The food furnished the prisoners as a rule was poor, and he and many of his companions lived chiefly on food mailed by friends. Captain Hart was exchanged as a medical officer and went to London in the early part of July.

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Niagara Camp: We understand that things are running very smoothly in the camp at Niagara-on-the-Lake. From a medical standpoint things have been satisfactory on the whole. Nothing has happened during the last few weeks to create any anxiety excepting a sudden attack of ptomaine poisoning at the Officers' Headquarters early in June. Col. Logie, Col. Forneret and some others were somewhat seriously ill for a few days, but all have recovered.

It is well known that sanitary regulations are carried on under the supervision of Drs. McCullough and Fitzgerald. They have found it necessary to chlorinate the water, with the result that the water is perfectly safe. The chlorination as usual has caused a certain amount of dissatisfaction, as at times it gives a very unpleasant taste to the water, and this undesirable flavor is especially noticeable in the tea.

We believe a few complaints are made about the character of the food and the cooking. One of the complainants stated that a fellow soldier was served with a piece of meat which was

fly-blown, and that when he complained to an officer he was told to clean the meat and eat it. We understand that Col. McCordick considered that there was no truth in the statement.

We should hardly mention such a complaint, which probably had no foundation in fact under ordinary circumstances, but we desire now to emphasize the fact that such a charge is a very serious one. People are beginning to realize the fact that meat upon which flies have settled is not fit to eat, and to compel a soldier to eat meat that has been fly-blown should be considered a criminal act. Upon the whole, however, so far as we can learn, the soldiers at the Camp get plenty of good food and fairly well cooked.

## Personals

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Dr. H. A. Bruce, of Toronto, attended the meeting of the American College of Surgeons at Rochester, Minn., June 6-10.

Dr. Charles O'Reilly, Toronto, took a trip down the St. Lawrence the latter part of June, and paid a visit of a few days to Montreal.

Dr. William Oldright, of Toronto, left the city early in June for his summer home in the Muskoka District, a little north of Port Carling.

Dr. J. H. Elliott, of Toronto, went to his summer residence in Port Carling about the middle of June, and expects to remain there for the summer.

Dr. George Porter, of Toronto, went with his family to his residence in Muskoka, which is situated on an island opposite the Royal Muskoka Hotel. He expects to return about September 10th.

Dr. Kendal, of Gravenhurst, is still doing special work in connection with diseases of the lungs. He will shortly present to the profession a report, which will really be a sequel to the paper which he read last year at St. John, N.B.

Dr. J. N. E. Brown, at one time Superintendent of the Toronto General Hospital, and recently Superintendent of the Detroit General Hospital, has been appointed head of the new Henry Ford Hospital, of Detroit.

The dinner of the Old Boys' Association of Trinity College, Port Hope, on Victoria Day was a very interesting function. Among the guests of honor was Dr. Arthur Jukes Johnson, of Toronto, who was the first to register in the school fifty years ago.

Dr. Adam Wright, of Toronto, and Dr. George Clinton, of Belleville, spent nearly a week in the latter part of June inspecting a large portion of the summer resorts in that district.



We are glad to say that their report is very satisfactory, and thanks to the persistent work of the Provincial Board of Health, from the time of Dr. Peter Bryce's appointment as Chief Officer of Health to the present time, the general condition of the hotels and lakes from a sanitary point of view is satisfactory.

The resignation of Dr. Jno. L. Bray as Registrar, was accepted with deep regret by the Ontario Medical Council at its last meeting. Dr. Bray is 74 years of age, and graduated M.D. from Queen's University 52 years ago. He received the degree of LL.D in 1905. He was President of the Ontario Medical Council in 1882-3. He was appointed Registrar of that same body in 1907. His many friends feel very sorrowful because of the serious illness which caused his resignation. It seemed fitting to the majority of the members of the Council that the offices of Registrar and Treasurer should be combined, and Dr. H. Wilberforce Aikins was appointed to the dual position. His intimate knowledge of the Council's routine work will make him eminently suited for the position of Registrar.

## Obituary

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### THOMAS WILEY, M.B.

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Dr. T. Wiley, 685 Spadina Avenue, Toronto, died at his residence June 25th, after an illness of some weeks, aged 74. He graduated from Victoria University in 1866, and after practising for a short time in Manilla and Dunstroom he removed to Stayner, where he practised 17 years. He then came to Toronto, where he practised up to the time of his last illness. He was a Conservative in politics and a member of the Ontario Legislature for some years. He was Grand Medical Officer for the Sons of Scotland for many years. He had a pleasant personality and was well liked by all who knew him.

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### H. A. WILLIAMS, M.D.

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We have to announce with deep regret the death of Dr. H. A. Williams, which occurred under peculiarly distressing circumstances, July 2nd. A person afflicted with tuberculosis and also insanity, as it unfortunately turned out, visited him in his office that day, and after a few words of conversation shot and killed him. The lunatic then turned the revolver and shot himself dead.

Dr. Williams, after graduating, was a resident physician for some time at Gravenhurst, after which he removed to Hamilton and commenced practice in that city. He was a son of the late Dr. Watson Williams, who after graduating in 1866, practised for a time in Trenton, and later at Allenford, Ontario.

## Book Reviews

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*Diseases of the Digestive Organs.* With Special Reference to their Diagnosis and Treatment. By CHARLES D. AARON, Sc.D., M.D., Professor of Gastro-enterology in the Detroit College of Medicine and Surgery; Consulting Gastro-enterologist to Harper Hospital. Octavo, 790 pages. Illustrated with 154 engravings, 48 röntgenograms and 8 colored plates. Cloth, \$6.00 net.

Perhaps in no branch of Internal Medicine has there been so much progress made of recent years as in that covered by the title of this new work on the Diseases of the Digestive Organs. Developments in clinical and chemical pathology, together with the light thrown upon the subject by the röntgenologist have contributed largely to this.

In this work, which is exhaustive in its nature, Dr. Aaron has reviewed the whole field, and produced a treatise which should be a standard for many years. The preliminary chapters cover the physiology of digestion, methods of diagnosis, diet, therapeutics, both physical and medical. The various diseases of the system follow in their natural sequence, while special pains are taken to point out their inter-relationships to each other and the body as a whole. Border-line cases are discussed, where the question of surgical interference arises. The work is suitably illustrated with plates, illustrations and skiagrams.

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*A Compendium of the Pharmacopœias and Formularies (official and unofficial) with Practical Aids to Prescribing and Dispensing.* By C. J. S. THOMPSON. Fifth edition. London: John Ball, Sons & Danielsson, Ltd. 1915.

This book, which we confess to have been quite new to us, is one of the most useful compendiums we have seen. It will be particularly useful to those who read foreign books and periodicals, containing as it does the synopsized pharmacopœias of fifteen countries. In addition are various useful formulæ, a therapeutic index, analytical and clinical tables and data. It is a book for which one could find a use every day, and we are sure will be appreciated by all whose attention is drawn to it.



*Infection and Immunity, a text-book of Immunology and Serology for Students and Practitioners.* By CHARLES E. SIMON, B.A., M.D., Professor of Clinical Pathology and Experimental Medicine at the College of Physicians and Surgeons; Pathologist to the Union Protestant Infirmary and the Hospital for the Women of Maryland; Clinical Pathologist to the Mercy Hospital of Baltimore, Maryland. Third edition, revised and enlarged; illustrated. Lea & Febiger, Philadelphia and New York. 1915.

The developments in the field of Immunity are so rapid that a new third edition of this well-known work has been necessitated. The subject is most clearly presented, so that one not personally familiar with it can readily follow the text. As compared with the previous edition, the work of Abderhalden on Protective Ferments has received special consideration. The chapter on the Wassermann reaction has been rewritten. The observations of Schick on diphtheria patients and of Ashhult and John on tetanus are emphasized.

To each chapter a bibliography is appended, while the book is suitably illustrated.

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*Pathological Technique.* Including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By F. B. MALLORY, M.D., Associate Professor of Pathology, Harvard Medical School; and J. H. WRIGHT, M.D., Pathologist to the Massachusetts General Hospital. Sixth edition, revised and enlarged. Octavo of 536 pages with 174 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$3.00.

Improvement in technique and newer reactions and tests have necessitated a new sixth edition of this authoritative laboratory manual. The general plan of the book is in conformity with earlier editions, there being sections on post-mortem examinations, bacteriological and histological technique.

Such new staining methods as Beasley's for the demonstration of mitochondria, and Herxheimer's for fat are included. The complement fixation test for gonorrhœa, Lange's colloidal gold test for syphilis of the central nervous system are new additions to the bacteriological section.

Mallory and Wright will continue to be the desk book for laboratory workers, which it has been since the first edition appeared in 1897.

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*What Every Mother Should Know about Her Infants and Young Children.* By CHARLES GILMORE KERLEY, M.D., Professor of Diseases of Children, N. Y. Polyclinic Medical School and Hospital, New York. Paul B. Hoeber, 67-69 East 59th Street. 1915.

This is an admirable treatise which may be placed with safety in the mother's hands. It does not attempt too much, but gives simple instruction in the Hygiene, Nursing, Feeding and simple ailments of young children. It well fulfills its purpose and should commend itself to physicians and child's welfare organizations.

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*Progressive Medicine.* A quarterly digest of advances, discoveries and improvements in the medical sciences, edited by H. A. HARE, M.D., Professor of Therapeutics, Materia Medica and Diagnosis in the Jefferson Medical College, Philadelphia; assisted by L. F. APPLEMAN, M.D., Instructor in Therapeutics, Jefferson Medical College. Vol II., June, 1915. Lea & Febiger, Philadelphia and New York.

This volume deals with hernia, abdominal surgery, gynecology, diseases of blood, thyroid, spleen and lymphatic system, and ophthalmology. As usual, the articles reach a high level, and all deal in a concise way with the progress during the past twelve months. There is no other method for keeping up to date as easily as a subscription to "Progressive Medicine."

## Miscellaneous

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### Cancer

The etiology of cancer in the light of recent cancer research is studied by H. R. Gaylord (*Journ. Amer. Med. Assoc.*, March 20th, 1915). He says that perhaps the more important problems in cancer research centre in the so-called parasitic theory. Through the discoveries of filterable viruses, it may be assumed that this hypothesis is at last justified. The chief question is whether this theory is universally applicable. Investigators now generally recognize predispositions to cancer and agencies bringing about the cancerous conditions. They are of varied nature, and, so far as may be determined, may be summed up as chronic irritation. In exceptional cases even a single trauma may supply it, but in the high percentage of cases the local predisposing features may be definitely determined. There are also more constitutional factors, and experiments on mice and other animals have shown a definite constitutional susceptibility that, in the belief of many, is transmissible. It is not possible, however, that there is a single cancer parasite. There are probably many, each specific for one type of tissue, and a number of these have been determined experimentally in the lower animals. A malignant neoplasm may not always present all the characteristics included in the definitions. The power to form metastases may be lacking, and it may appear in the course of transplanting the neoplasms. The existence of an immunity to transplanted cancer has been established in mice by Gaylord and others, and the inoculation of tumors of an alien species into an animal has shown that the entire immune mechanism is not yet established in the early stages of development. One of the most effective normal tissues available in setting up resistance to implanted cancer is the spleen, which suggests it as the principal force of anti-human cancer with cancer cells by vaccination, and this has been to some extent demonstrated. Cancer cells introduced into the blood in the early stages of the disease do not always produce metastases, and Goldman's view that the blood exerts an immunity is supported. The complement deviation and Abderhalden reactions show that the blood contains antibodies and antiferments, but these reactions are non-specific. Ether and chloroform anaesthesia seem to favor the growth of cancer, and every surgeon, Gaylord says, is having experience of finding cancer cases made worse by surgical in-



terference. Something similar has been noted in the treatment of tumors by radiation. Finally, Gaylord mentions the inclusions in cancer, and says that specific inclusions are more or less characteristic of a considerable growth of infectious diseases caused by filterable viruses. There are thirty odd known filterable viruses, including three specific ones causing neoplasms, discovered by Rous. This widens the scope of cancer research, and it is possible that we may learn the true significance of inclusions in these diseases and in cancer, which is a question left for future investigation.—*B. M. J.*

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### **Boiling Water Injections into the Thyroid Gland for Hyperthyroidism**

Porter (*Surgery, Gynecology and Obstetrics*, January, 1915) adopts the following technique: An all-glass syringe of 10-Cc. or 20-Cc. capacity is best. The greater the capacity of the syringe, the longer the heat of the water is retained. The needle should be long, flexible, and rather fine. The syringe is boiled with the water over a gas or alcohol flame by the side of the table or bed on which the patient is lying. After proper cleansing, the areas to be injected are infiltrated with one per cent. novocaine. The filled syringe is removed from the water, which is actually boiling, and the injection quickly made. From 5 to 20 Cc. are injected according to the size of the lobe. By partially withdrawing the needle and reinserting it, contiguous areas may be injected through one puncture.

Most patients complain immediately after the injection of a feeling of fullness in the goitre and some pain in the sides of the occiput, but the discomfort is really trifling.

The injections are to be repeated until the desired effect is attained. If one is using the treatment preparatory to thyroidectomy, then it is well to repeat the injections every two or three days, if more than one is necessary; but if one has decided to try to effect a cure by this means, it will be better to wait a week or ten days before repeating the injections, for, as indicated above, while the improvement is usually marked within the first forty-eight hours, it does not reach the maximum for ten days or two weeks.

It is better, especially in the larger goitres, to inject two, three, or more areas at one séance than to make the injections at intervals. The tendency is, as experience grows, to make larger and multiple injections at a single séance rather than to make smaller and single injections and repeat the séances. In

some cases with small, ill-defined glands it is better to make the injections through a small incision in the midline, done under local anæsthesia, which will enable the operator to do the work under the guidance of the eye.

The author feels that the clinical and experimental facts warrant the following conclusions:

Injections of boiling water into the gland should be substituted for the so-called medical treatment in patients with small thyroids and moderate symptoms of hyperthyroidism.

This method is also peculiarly well adapted to the treatment of patients with moderate or severe symptoms and relatively small glands, and especially to cases wherein the hyperplasia is circumscribed. It is therefore well adapted to the treatment of patients who have had a lobectomy done and are still suffering from symptoms of hyperthyroidism with hypertrophy of the remaining lobe.

Patients with large goitres and extreme symptoms of hyperthyroidism should be treated with the injections until they become safe surgical risks and then have the gland removed.

Boiling water injections are not recommended in non-toxic goitre. In such cases, as in patients with large goitres and toxic symptoms but who are good surgical risks, thyroidectomy should be the chosen method of treatment.

In substantial hyperactive goitres the removal of which would be hazardous, boiling water injections under guidance of the eye should be tried.—*Therapeutic Gazette*.

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### The Oculo-cardiac Reflex

This phenomenon, which was first described in 1908 by Aschner, and to which considerable attention has recently been paid, consists in a change in the pulse rate, usually a slowing, and sometimes in a change in the pulse rhythm, following compression of the ocular bulb. The reflex occurs in normal individuals, its path consisting of the fifth nerve, the medulla, and the vagus or sympathetic nerve. Persons showing the usual type of this reflex, in which the vagus forms part of the arc, are designated as vago-tonics; persons in whom the sympathetic is part of the reflex arc react to ocular compression by means of a very slight slowing or an actual increase of the pulse; these individuals are known as sympathicotomics.

Two important clinical studies of the oculo-cardiac reflex have recently appeared. The first of these, by Noel Orlandi,

# Gastric Disorders

Physicians appreciate the prevalence of gastric disorders, in acute and chronic form, and that diet plays a very important part both in causation as well as in the cure of diseases of the stomach.

The necessity of regulating the diet and prohibiting foods which will aggravate the existing conditions is therefore obvious.

Tea and coffee, on account of their caffein and tannin content, have a most detrimental effect on gastric digestion, consequently they should be prohibited in all gastric disorders and also in cases where the digestion is easily impaired.

The fact also, that most stomach cases suffer from malnutrition makes the use of

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instead of tea or coffee doubly effective because it is a safe and tasty drink, plus some nourishment.

Postum is made of selected whole wheat and a small per cent. of wholesome molasses, is absolutely free from drugs, and served hot makes a nourishing and very pleasing beverage without the dangers attendant to tea and coffee.

### “There’s a Reason”

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The *Clinical Record*, for Physician’s bedside use, together with samples of **Instant Postum**, **Grape-Nuts** and **Post Toasties** for personal and clinical examination, will be sent on request to any Physician who has not yet received them.



is contributed to *Riforma Medica*, February 27 and March 6 and 13, 1915. He finds that compression of the ocular bulb causes a slowing of the pulse in normal persons to the extent of four to twelve pulsations a minute. The same effect is observed whether the two bulbs are compressed simultaneously or alternately. If compression is repeated three or four times at intervals of a few minutes the reflex disappears. It may show considerable variation in the same individual; on one day light compression of the bulb may cause a reduction of twelve or fourteen in the pulse rate, whereas on the following day similar compression may cause a reduction of only four. In no normal subject has Orlandi ever observed an inversion of the reflex. In two instances, upon the repetition of the test following the production of bradycardia he obtained a transient acceleration of the pulse. Age has an important influence upon the phenomenon. Infants react with a more pronounced bradycardia than do adults; in women the reflex is more marked than in men. On the basis of his observations Orlandi concludes that the oculo-cardiac reflex is a normal phenomenon dependent upon the integrity of the vagus path; apparently, however, the reflex are is frequently exhausted, for in certain instances the repetition of the stimulus causes the nerve impulse to be propagated along the sympathetic, in which case tachycardia results.

The oculo-cardiac is abolished in chronic aortitis. It is absent in tabes dorsalis with a constancy comparable with the presence of the Argyll-Robertson pupil. The reflex is exaggerated in the vagotonic syndrome and inverted in the sympathicotonic syndrome. It is a useful diagnostic aid in cases of bradycardia and in certain cases of changed conductivity in the atrioventricular path, by showing the integrity or impairment of the extracardiac innervation. In other words, the oculo-cardiac reflex is an index of the functional efficiency of the vagus. But before attributing any diagnostic value to this reflex one must bear in mind the wide limits of its variability under normal conditions, and the fact that the reflex is easily exhausted by repetition.

E. B. Gunson (*British Journal of Children's Diseases*, April, 1915), has studied the oculo-cardiac reflex with the aid of the polygraph in cases of diphtheria and scarlet fever occurring in children under twelve years of age. He notes that the positive vagal effect or slowing of the pulse is an indication of the normal state of the nervous mechanism of the heart, and may be obtained even in the presence of a myocardial degenera-

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## Medical Council of Canada OCTOBER EXAMINATIONS, 1915

The examinations of the Medical Council of Canada will be held in Montreal and Halifax coincidentally on October 12th, 1915.

Forms of certificate may be obtained from the Registrar at any time.

Registration for the October examination will close promptly at the Registrar's office in Ottawa on September 14th, 1915.

R. W. POWELL, M.D., Registrar, 180 Cooper St., Ottawa, Ont.

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R. W. POWELL, M.D., Registrar, 180 Cooper St., Ottawa, Ont.

tion. The reflex is positive in about 92 per cent. of children convalescent from diphtheria and scarlet fever. The negative reflex, that is, one in which there is no slowing or an actual quickening of the pulse, occurs in all cases of so-called "cardiac paralysis" that terminate fatally; in cases that recover the reflex becomes positive when the heart returns to the normal state.

The study of the positive oculo-cardiac reflex in cases of scarlet fever and diphtheria with the aid of the polygraph shows a slowing of the whole pulse, with stoppage of the heart in some cases for as long as four seconds; a production of premature contractions; a reduction of the  $a-c$  interval; a production of  $c+a$  beats; and, in diphtheria cases only, a complete dissociation of auricles and ventricles. Gunson concludes that the oculo-cardiac reflex is of diagnostic value in confirming the neural origin of the great majority of the post-febrile bradycardias and in differentiating them from cases of auriculo-ventricular heart block.—*N. Y. Medical Record*.

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### Of Rheumatism

If we inquire, "What is rheumatism?" we may be sure of the same chilly and furtive dumbness as that which greeted Pontius Pilate when he made his famous demand for a definition of truth. The reply to such a question must take the form of the uninforming negative. We are beginning to realize what rheumatism is not; by a process of gradual exclusion we may hope some day to arrive at what it is, if indeed it be anything at all. "Si le bon Dieu n'existait point, il faudrait l'inventer" is a characteristically corroding saying of that incorrigible cynic who vainly sought to make Frederick the Great into a gentleman. If there were no generic positive to cover the agglomeration of negatives which we call rheumatism, it would be necessary to devise one. Rheumatism has nothing to do with acute rheumatism or rheumatic fever. It has nothing to do with what the French call "arthritisme," a term which, by a topsy-turvey process, much better suited to the muddle-headed Briton than to the clear-headed Frenchman, is used to describe all or any of the manifestations of rheumatism save only the arthritic, which are specifically excluded. Rheumatism has nothing whatever to do with uric acid, a senseless bogey badly designed by sad and salicylic herbivora to frighten the active and careless carnivora. Rheumatism has nothing to do with chorea, tonsillitis, subcutaneous nodules or erythema nodo-

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sum, all of which are said to have a real, but hitherto unexplained, relationship to acute rheumatism. It may be that the only connection between them is the sinister power, common to them all, of giving rise to endocarditis, a relationship which is not real, but apparent only. The power of producing a vicious cretin is common to many women who are unrelated to one another.

The word rheumatism is derived from *péw*, to flow. Shakespeare, and the writers of his time, always used it in the sense of a flux: "You that did void your rheum upon my beard." The older pathologists distinguished rheuma into three species; that of the chest, catarrhus; that of the fauces, bronchus; and that of the nostrils, coryza. Here, indeed, is terminological muddle, through which it is quite impossible to discern the path by which the name first became concentrated on the joints, and thence passed via the muscles and the nerves to anything which was obscure and accompanied by pain. It will now never be divorced from the joints, for by a consensus of expert opinion "acute rheumatism," or "rheumatic fever," is so well established as to make a change impossible, even were it desirable. Dr. W. G. Grace, when asked why a particular kind of ball, the one which pitches on the batsman's "block," was called a "yorker," replied, "Well, what else could you call it?" The same may be said of rheumatic fever; for though it would be easy to the pedant to suggest a more scientific name, the net result of his exercise would be to increase the existing chaos.

But we are advancing. Muscular rheumatism is developing into myalgia, tendinous rheumatism is now fibrositis, and obscure pains have become "neuritis." "Neuralgia" is no longer in favor; the common people have it. Even the "rheumatoids" do not advance in close formation; they are beginning to be discreet. Rheumatoid arthritis, formerly rheumatic gout, has ceased to be a disease; it is merely a symptom-complex, which owns causes so dissimilar as tuberculosis and oral sepsis.

The term "rheumatic gout" suggests that there is a difference between rheumatism and gout. Between acute rheumatism and gout, it is all difference; but between rheumatism of the vulgar sort and gout there is, we humbly suggest, no real difference. Save and except acute rheumatism and rheumatoid arthritis, all the tribes of rheumatism are in reality forms of gout. What, then, is gout? The term itself is derived from the French *goutte*—a drop; Latin, *gutta*; suggesting the idea of the dropping of a morbid material from the blood in, and around, the joints. If the idea of dropping of morbid material

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be not restricted to the joints, the term is a good one. The drops may fall upon the muscles, the tendons and the nerves; they may even fall upon the eyes to blear them, and insinuate themselves through the skin to pimple it. Nothing, indeed, is sacred to these drops, not even the testicle. What we know of gout was taught us by Sydenham (1624-1689). In 1683 he published his "Tractus de Podagra et Hydrops," and until quite recently nothing of importance has been added to our knowledge since his time. "The more closely I have thought upon gout, the more I have referred it to indigestion or to the impaired concoctions of matters, both in the parts and the juices of the body." Thus spake the Master, and to-day we can do no better than paraphrase his saying by announcing that gout is due to "a vice of metabolism," a truly illuminating pronouncement, quite worthy of the nineteenth century physicians who studied vitality in a test-tube. But the real kernel of Sydenham's classical and immortal description has been overlooked. "Add to this," he says, "that great eaters are liable to gout, and of these the costive more especially." Here we have revealed to us the origin of those "drops of morbid material" which are at once so ubiquitous and so unsettling. "The costive more especially" points unmistakably to the seat of the vice of metabolism, which, in the light of these words, is a vice not so much of metabolism as of excretion. Nothing more liberally contributes to "the impaired concoctions of matters" than the undischarged bankruptcy of the colon; nothing more surely distills the drops of morbid material than the "vast mass of humors" engendered by intestinal stasis.

There have been two writers upon gout—Sydenham and Arbuthnot Lane. That the latter did not realize that he was more than half solving a problem which had baffled investigators for two hundred years, detracts nothing from the value of his contribution. Some day there will arise a third writer who will still further clarify this jelly. And this he will do by means of an internal secretion. To induce him to emerge from his present obscurity we offer him the following considerations. Gout is seldom seen before puberty; in woman during her reproductive period it is very rare; and the smug and sibilant castrate is as little liable to beget tophi as he is to beget children.





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### The Use of Paraffin in General Practice

This writer, Pritchard (E.), believes that practically the whole of the therapeutic benefits to be derived from the internal use of liquid paraffin are due to its effects as a lubricant and the controlling influence thereby exercised on intestinal stasis. He also puts forward the novel and somewhat paradoxical suggestion that the use of paraffin promotes nutrition by *interfering with absorption*, alleging that most people eat too much, and their nutrition suffers thereby, and will be benefited by controlling the quantity of food assimilated, provided that the passage of the unabsorbed food is facilitated through the bowel as it is under the influence of paraffin. He admits that in certain cases constipation is aggravated by taking paraffin; this he attributes to the removal of the accustomed stimulus to the neuro-muscular mechanism of the bowel, viz., the scybalous masses. Alleged instances of "biliousness" from the use of paraffin are believed to be due to psychological influences.

The cases in which paraffin is indicated are especially cases of chronic poisoning of the nervous system with the products of intestinal putrefaction, e.g., exophthalmic goitre, neurasthenia, melancholia, etc. It is extremely useful in children suffering from the effects of intestinal intoxication, as evidenced by foul breath and foul stools, coated tongue, nervous irritability and peevishness. In many cases of colitis it is also valuable, likewise in intestinal colic of infants and in thread worms, the regular administration of paraffin preventing accumulation of inspissated mucus which usually contains the parasites and their ova.

The various forms in which paraffin can be now given are mentioned, the writer stating his preference for an emulsion, which has been found of great use in children.

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### The Hay Fever Problem

This is the time of year when the services of the physician are actively demanded by the victim of vasomotor rhinitis—a season dreaded not alone by the patients, but, not uncommonly, by his medical adviser as well. Particularly is this true of the latter if he has not kept abreast of modern ideas on the therapy of hay fever. In any event the disease is one that tries the patience and calls for the application of remedial agents that have been proved beyond peradventure. Happily there are a number of such agents from which the physician can choose—

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products that have passed the experimental stage and demonstrated their serviceability. We refer in this connection to some members of the Adrenalin family—Adrenalin Chloride Solution, Adrenalin Inhalant, Anesthone Cream, Anesthone Inhalant. These products, in all of which the isolated active principle of the suprarenal gland (Adrenalin) is an active constituent have rendered long, efficient service in the treatment of hay fever, and one feels no hesitancy in heartily commending them.

Adrenalin Chloride Solution, which is perhaps more widely used than any other preparation in the treatment of hay fever, is sprayed into the nasal chambers and pharynx by means of a hand atomizer adapted for aqueous liquids, or it may be applied on a pledget of cotton. For the former purpose it is advisable to dilute the solution as marketed (1:1000) by the addition of four to five times its volume of physiologic salt solution.

Adrenalin Inhalant, which is a solution, in an aromatized neutral oil base, of the suprarenal active principle, is well adapted for vaporization and inhalation from an oil atomizer. Used as an adjunct to Adrenalin Chloride Solution, or independently, it gives good results, parts not accessible to other medication being readily reached by the medicated vapor. It should be diluted by the addition of three to four times its volume of olive oil.

Anesthone Cream was devised by Dr. J. E. Alberts, of The Hague, Holland. It contains Adrenalin and a harmless local anæsthetic (para-amido-ethyl-benzoate), incorporated in a neutral ointment base, and is applied to the inside of the nostrils four or more times a day, the patient snuffing it well up after each application, the quantity required being in size about that of an ordinary pea. It affords a relief which continues for hours in many cases, a fact worth remembering when one considers the fleeting effect of most local anæsthetics.

Anesthone Inhalant contains the same active ingredients as Anesthone Cream, but the proportion of Adrenalin is doubled (1:10,000). These ingredients are incorporated in an aromatized neutral oil base. It is sprayed into the nose, first being diluted with olive oil or liquid petrolatum.

Another agent which has been used with marked success in the treatment of hay fever is Mixed Infection Phylacogen. It is administered by hypodermic or intravenous injection. The initial dose should be small, a 2-Cc. dose subcutaneously or a ½-Cc. does intravenously being suggested. Many physicians are of the opinion that the use of Mixed Infection Phylacogen marks a distinct advance in hay-fever therapy.

# The Canadian Practitioner and Review

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## Original Communications

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### THE TREATMENT OF ARTHRITIS\*

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BY DR. E. SEABORN, LONDON, ONT.

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To understand joint diseases we must understand the capacity for repair of the different constituents of a joint, that is, the bone and capsule (continuous with each other) and the cartilage and synovial membrane (continuous with each other).

First, the bone has a very great capacity for withstanding attack, being able to enlarge, if necessary, to surround and encapsulate a focus or irritation; is able to form new bone and so compensate any loss of substance.

The capsule is one of the most resistant of the tissues and persists through any irritation, even though it has no power of regeneration. The cartilage is incapable of any enlargement or of any regeneration, having no direct blood supply. It is dependent on the subjacent bone, and is destroyed by irritation of that structure early in any disease.

The synovial membrane is capable of very great hypertrophy, but the new tissue is very largely formed of small white cells resembling granulation tissue and having the same phagocytic action.

The classification of joint diseases adapted for the purposes of this paper is: (1) Septic arthritis, (2) Rheumatoid arthritis.

Septic arthritis occurs as the result of traumatism or in the course of such diseases as septicæmia and pyæmia, syphilis, gonorrhœa, pneumonia, scarlet or typhoid fever, osteomyelitis, cerebrospinal meningitis.

During these acute diseases, their causal organism, or another causal organism of a mixed infection, produces an acute disease

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\*Read by title at the Annual Meeting of the Ontario Medical Association, Peterborough, May, 1915.

in the joint. The organism is demonstrable in the fluids of the joint or in the capillaries of the synovial membrane.

Rheumatoid arthritis occurs in the course of chronic microbial infection. In this the organisms are not ordinarily demonstrable in the fluids of the joint or in the capillaries. They may be found with difficulty encapsulated in any new formations, either fibrous or bony, but much more easily in the lymphatic glands which receive the drainage from the affected joints. This latter observation is of great practical importance.

The anatomical conditions possible in any diseased joints are these: First and most simple—The effusion of serum into the joint which may be sterile, the organism may be still contained in the capillaries.

In the *Second Stage*, the synovial membrane, by reason of the contained bacteria or of some other irritant, hypertrophies. Synovial fringes project into the joint and overlies the articular cartilage and by their phagocytic action destroy this cartilage. If the irritation continues great, the phagocytes of the blood with the small round cells of the synovial fringes may break down and form the *Third Condition*, purulent arthritis. This purulent condition may be due to the breaking of an abscess situated in the bone or in the synovial membrane, or, *Fourthly*, synovial fringes after eroding the cartilage may become organized, forming bands resulting in fibrous ankylosis.

Fibrous ankylosis also results when the cartilage is exfoliated by reason of the disturbance of blood supply of the subjacent bone; or, *Fifthly*, new bone may be deposited in the new fibrous tissue and produce bony ankylosis; or, *Sixthly*, the chronic irritation may result in the production of new bone, especially where cells of the synovial membrane change in character from fibrous tissue to cartilage cells.

In considering the treatment of arthritis we must remember that the cartilage is the least capable of resistance of the constituents of the joint and must be protected first. This is most effectually done by extension. Extension itself gives more relief than a hypodermic of morphine. The local treatment of septic arthritis consists: *First*, in serous effusion, rest, pressure and occasionally aspiration; *Second*, Villous arthritis, the treatment is that of serous effusion.

*Third*.—The older treatment of incision and drainage should not be practised until the pus has been aspirated and the joint injected with 2% formalin in glycerine. This should be done every two or three days. In cases treated early the fluid in the



joint will be serous and sterile at the second or third aspiration. Formalin dissolves slowly in glycerine, and must not be used until solution is complete. This is not before one or two days.

*Fourth.*—Fibrous ankylosis.—Treatment by massage, passive motion, followed by breaking down the joint in the well recognized way.

*Fifth.*—Bony ankylosis.—If extension has been put on and maintained this will seldom occur, and even if it does occur the limb will be in the most useful position. When not sufficiently useful by reason of malposition, arthroplasty may be undertaken. A layer of fat and fascia is interposed between the two bones which have been altogether denuded of their cartilage. New fibrous tissue joins the bones to the interposed tissues and a small amount of motion takes place in areolar tissue, and by passive motion it is capable of great increase.

We had in a ward of Victoria Hospital a man who had almost normal motion of both hips after complete bony ankylosis of several years' duration.

*Sixth.*—New bone formations will restrict the motion of the joint and will require removal. It may be necessary to interpose fat and fascia as in bony ankylosis.

The constitutional treatment of septic arthritis is that of the causative disease, with the use of serum or vaccine. Auto-genous vaccine may be made from bacteria recovered from the joint or from other foci.

Treatment of Rheumatoid Arthritis.—It is now well recognized that the focus of chronic suppuration must be removed. The tonsils, teeth, nasal fossæ, appendix or prostate often contain this focus. In many cases, after most diligent search has been made to locate the focus and when the serum from the joint is negative, we may still find the offending organism by removing under most strict asepsis the lymphatic gland nearest to the joint, macerating it, and making a culture of the contained organisms. Then vaccines may be prepared and that used which gives the most characteristic reaction.

In two cases in which this was done the improvement was very great. In both staphylococcic and streptococcic vaccine had been used, and in one gonococcic vaccine as well.

The improvement after autogenous vaccines thus procured was very great.

## THE CLINICAL ASPECTS OF INTESTINAL OBSTRUCTION

BY A. R. GORDON, M.B., TORONTO.

The clinical picture in all cases of intestinal obstruction is a constant one in one particular, viz., interference with the free passage of the intestinal contents past a certain point in the tract, and if complete, producing stasis at this point. But the phases of the picture are many and varied, depending upon certain conditions, viz., whether of sudden or gradual onset; whether associated with vascular and nerve constriction or not; whether such obstruction occurs as a complication of some other condition, perhaps an abdominal one, already characterized by pain and distension, e.g., appendicitis, puerperal septicæmia, or a colitis. The picture varies too, with the portion of the tract affected, the severity and full development of the symptoms usually being in proportion to the proximity of the obstruction to the pylorus.

Depending on the above, I have to present to you the clinical picture of intestinal obstruction as it occurs in three distinctive types.

First.—“The Acute Intestinal Obstruction,” as we see it in “Internal Strangulated Hernia,” “Intussusception,” “Volvulus,” or strangulation from a band of adhesions.

The clinical picture of this type is characteristic.

It is initiated by pain, sudden and severe, soon to be followed by nausea and vomiting, the vomitus becoming fecal sooner or later, depending on the proximity of the trouble to the pylorus. There is the pulse, expression, and soon all the essential features of “shock,” even before the obstruction is evidenced by retention of bowel contents.

These symptoms are due, I believe, to the sudden strangulation of the tissues, inducing a toxæmia from secretory and nutritive changes, and initiating powerful afferent stimuli to the vasomotor centre, “the hub of the wheel of life,” as I think Leonard Hill puts it.

There is abdominal rigidity more pronounced over the site of the obstruction, and often persisting even during anæsthesia (to this latter my attention was first called by Dr. Fred Starr); the breathing is thoracic, as in all cases of acute abdominal pain; perhaps a palpable tumour as in intussusception; a localized dis-

tension, e.g., an obstruction of the lower ileum will result in a central distension, while the periphery is furrowed from a colon empty; there may or may not be mucous or bloody mucous stools, depending on the rapidity with which the obstruction is completed; there may be visible peristalsis, depending on the irritability and motility of the proximal portion of the gut, unless disguised by the thickness of the abdominal wall, or prevented by paralysis of the bowel from distension.

Unfortunately all of the foregoing are often disregarded till the faecal vomiting, pronounced shock, and complete retention of bowel contents complete the picture.

As the gravity of any case is in direct ratio to the duration of it, the early recognition of it is all-important; and as it is also in direct ratio to the activity of peristalsis, so should that peristalsis be controlled.

Hence a good rule, "In any case of sudden acute abdominal pain, never give a purgative," and how often is it violated?

Second.—The intestinal obstruction of gradual onset, unaccompanied by strangulation, and presenting simply mechanical interferences with the passage of the intestinal contents, without much constitutional disturbance, or abdominal distress, other than from successful or futile efforts to secure relief by the use of purgatives, as exemplified by the "Annular Carcinoma of the Sigmoid," "Chronic Intussusception," obstruction from a band of adhesions without strangulation, or impaction from faeces or enterolith.

With this type we get a history of troublesome constipation, periods of temporary obstruction, the attacks becoming more frequent and more obstinate; and with it all, no loss of weight or constitutional disturbances which might make us suspect the true nature of the trouble, the attacks of obstruction being due to a local inflammatory swelling, or faecal impaction, converting a partial into a complete obstruction, which may pass off with a few days' rest and treatment, only to soon recur.

The absence of serious constitutional symptoms is due, I believe, to two causes. First, there is no strangulation of the tissues, no local secretory or nutritional changes; and second, the bowel has developed a tolerance of the difficulty.

Remembering that a malignancy may long continue without symptoms, and remembering how important is its early recognition, in every case with such a history, should a careful rectal examination be made, whereby the difficulty may be discovered,



and this supplemented by X-ray plates to determine more accurately the position of the obstruction and its character.

Third.—There is another group of cases which offer peculiar difficulties, inasmuch as the obstruction occurs as a complication of some present abdominal trouble, e.g., an appendicitis with peritonitis, a cellulitis from puerperal septicæmia, or any one of the many abdominal conditions presenting independently many of the symptoms of intestinal obstruction, pain, rigidity, distension, nausea and vomiting, inactivity of the bowel, etc., which it is only necessary to suggest.

In such conditions, the complication of intestinal obstruction may sometimes only be guessed at, and *delay* in operative interference be an evidence of better judgment, than would be a hasty resort to operation. We see this illustrated especially in those cases of peritonitis following appendicectomy, and yet it is just in those cases where obstruction frequently occurs.

What may enable us to recognize the accident is a change in the clinical picture, an aggravation of the symptoms already present, or the appearance of some new symptom, or sign, e.g., complete retention of flatus with increasing distension or some grave change in the pulse.

It is often a difficulty to determine for example, whether the distension is the result of intestinal obstruction, or of intestinal paralysis.

A very helpful guide is one known as "Peters' Sign." The late Dr. George Peters noted and taught that in general peritonitis the heart sounds and breath sounds are heard over the whole of the abdomen. This would be explained by the fact that the hollow viscera in general peritonitis are in a state of paralysis, are uniformly distended, and act as a resounding chamber interposed between the diaphragm and the abdominal wall. In addition to this, all peristaltic sounds are absent, while even in great distension from mechanical obstruction, giving the appearance of general peritonitis, peristaltic sounds are still audible, and from the want of uniformity in tension, the heart and breath sounds are not heard.

This is the critical question. If there be mechanical obstruction it must be relieved by surgical measures; if there be simply paralysis of the bowel, surgical interference would be likely disastrous.

Again we often see enormous distension with neither peritonitis nor mechanical obstruction, which may simulate either or both, and due to atony of the intestinal musculature. Usually

however, there is variation in the degree of distension, and relief by occasional expulsion of flatus.

To epitomize:

I would like to emphasize the following:

In any sudden acute abdominal pain, do not use a purgative.

In every case make minute examination of the abdomen by inspection.

Give heed to the previous history of the case, e.g., of an increasing constipation, a recurring colitis.

The diagnostic value of auscultatory signs in abdominal distension.

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### Ergotism from War Bread

At present we may speak of two kinds of war bread in the belligerent countries of Europe. One is due to Government fiat and is standardized. The other is the result of actual or alleged stringency in bread makings, and is made of inferior or falsified materials. It is quite conceivable that "spurred rye" may find its way into bread, as has often happened even in peace times. At a session in April of the Royal Imperial Medical Society of Vienna (*Berliner klinische Wochenschrift*) Fuchs presented a soldier with convulsive ergotism. The man had lived while in Russian Poland on the native bread. The disease picture was that of severest tetany. There was, however, dry gangrene of the great toes, which at first suggested freezing, but although the patient had lived in the trenches the weather had not been cold. The author now investigated the feces and found ergot in abundance. The bread had been very dirty and had evidently contained ergot in large quantities. Recovery was spontaneous. The author regards epidemic tetany as a mild form of ergotism, and says it often develops after eating bread made with contaminated flour.—*Medical Record*.

## Selected Articles

## CANCER OF THE BREAST

BY R. CHARLES B. MAUNSELL, M.B., F.R.C.S.I., SENIOR SURGEON  
TO MERCER'S HOSPITAL, DUBLIN.

To-day we will consider a few important facts concerning cancer of the breast, keeping as much as possible to the clinical aspect of the subject. To illustrate our remarks we will choose these two patients, one of whom has not been subjected to any form of treatment, while the other has been operated upon and has returned suffering from a metastasis in her sternum. We will begin by examining the untreated patient who has in her breast a typical example of a moderately recent cancerous growth.

The patient's age is 38 years; she is married and has two children, the younger of whom is four years old. She is a fairly healthy-looking woman, of medium physique, and does not show sign of wasting. Her previous history contains little of interest, most of her complaints relating to "indigestion," constipation, and other ills of a more purely feminine character. She states that a few weeks ago, whilst bathing, she felt a lump in her left breast, and that when she pressed it she experienced a shooting pain. Since her attention has been directed to the lump, she has felt a "neuralgic" aching and periodic stabbing pains in the breast.

This is by far the most common history which we get from patients who suffer from this disease. Some other histories which we hear pretty frequently are as follows: (1) Some trauma, which has preceded the appearance of a lump; (2) the presence, for many months or years, of a painless lump which recently has increased in size and has become painful; (3) gradual shrinking of the breast and puckering of the skin over a limited area; (4) a history of prolonged irritation or ulceration of the nipple; (5) a recurring discharge of blood from the nipple, which the patient often looks upon as a form of vicarious menstruation.

Pain is never an early symptom of cancer of the breast. If the members of our profession and the public would grasp this fact a great many more lives might be prolonged. Patients feel various amounts and descriptions of pain after their attention has been drawn to the lump. In the later stages of the disease pain



is often severe, and in the terminal stage may be agonizing in character. On the other hand, we sometimes see patients who have reached the stage of widespread metastases without having made any serious complaint of pain.

In the case under examination, the lump is situated in the lower and outer quadrant of the breast, about half-way between the nipple and the periphery of the gland. This is a very usual situation, and is quite possibly determined by repeated slight traumata caused by the upper part of the corset. In size and shape the lump resembles a large broad bean. It is very hard, and its outline is fairly well defined. It is not as well defined in outline as an encapsuled tumor, or as some varieties of tensely-distended cysts, but it is much more defined than an area of chronic inflammation, especially if the palm of the hand is laid over it and the breast is pressed against the chest wall and gently rolled upon the pectoral fascia and the subjacent firm structures. The nipple is not retracted and the skin over the tumor is not puckered or discolored in any way, so that most of the text-book signs of cancer are absent.

If we hold the nipple between the thumb and index finger of one hand and simultaneously attempt to move the tumor outwards with the other hand, we feel that it is tethered, and is evidently a part of the breast tissue which cannot be moved independently.

If we now place the thumb of one hand lightly on the skin to one side of the tumor and place the index finger of the same hand in a similar manner on the skin at the other side of the tumor we notice that, even these digits are slightly approximated, the skin does not rise in an evenly convex manner like a similar area of skin over the healthy breast, but the convexity is flatter and the surface of the skin assumes the pitted appearance so well described as "orange skin." This sign is due to involvement of subcutaneous bands of fascia and lymphatics by the peri-cancerous infiltration, and is present in most cases of cancer for a considerable time, perhaps for some months, before actual invasion of the skin takes place. When present this is the most positive clinical sign of a cancerous growth before the obvious involvement of the skin and glands has taken place; but we should never waste precious time waiting for it to develop, as it is in itself evidence of dangerously-advanced disease, and a wise surgeon would have removed the tumor for microscopical examination long before the appearance of this sign.

We next notice that the breast and its contained tumor are

freely movable in all directions upon the pectoral fascia, even when the fibres of the pectoralis major have been rendered taut by getting the patient to extend her arm outwards, and to try to adduct it against resistance. This freedom of movement is of great importance in determining the probable ultimate result of our treatment.

By palpation we are not able to discern any enlarged glands in any part of the axillæ or in the supraclavicular region on either side. The right breast appears to be normal and there are no shotty nodules to be seen or felt in the skin over the anterior or lateral walls of the chest.

Before proceeding further, I would like to insist upon the necessity of examining the breasts, axillæ and triangles of the neck on both sides, as an atypical distribution of the disease is not uncommon. In illustration of this fact I may mention that on four occasions I have had to remove both breasts for simultaneous cancerous growths. On one occasion I had to remove both breasts because the glands were cancerous in the axilla on the side opposite to the breast which contained the primary tumor.

Percussion and auscultation reveal no signs of pulmonary or mediastinal metastases, and by palpation no enlargement of the liver is felt nor involvement of any other viscus discovered. There are no signs or symptoms present which would suggest the probability of spinal, or intracranial, or of osseous metastases. When looking for osseous metastases special attention should be paid to the spinal column, sternum, and ribs, and then to the long bones of the limbs. Some one may say that metastases would be found in these situations only in very advanced cases. With this statement I agree, up to a certain point, but experience has taught me that exceptions are not infrequent. Years ago I was present at the post-mortem examination of a patient in whom the only metastasis was situated in the cerebellum, although the breast which had been removed had not shown any of the accepted clinical signs of cancer, except the presence in it of a hard lump. I have seen several patients in whom the first clinical signs of recurrence of the disease were situated in the spinal column or other portion of the bony framework. Early involvement of the liver or some other abdominal viscus is unfortunately only too common.

When we speak of early metastases we mean metastases which make their appearance within a few months or weeks after the patient has first noticed the lump or pain, etc. We do not intend to infer that the metastases have followed soon after the actual

commencement of the malignant process in the breast. The actual time that a portion of the breast may be cancerous before signs or symptoms draw attention to the disease is not known, but we may be perfectly certain, for all practical purposes, that we never see a cancer which is not many months old.

Let us now consider the treatment which we will advise this patient to undergo.

In my opinion there are only two methods of treatment worthy of consideration in a case such as the one we have just examined :

(1) The application of the emanations of radium by means of hollow needles.

(2) The complete extirpation of the breast and its lymphatic connections, with or without subsequent radiation of the operation area.

The treatment of cancer by the emanations of radium is still in an experimental stage, so we would not be doing justice to our patient if we advised her to trust to its unknown possibilities unless she were to refuse radical operative treatment with its well-known large percentage of successes. We have good reason to hope that in a few years radiation, in some form, will be the accepted treatment for cancer of the breast and of many other organs, but it would be very unwise to forsake the older method until more scientific work has been done with the new method in suitable cases.

By "complete extirpation of the breast and its lymphatic connections" we mean the removal of the breast and all the overlying skin, the pectoralis major and minor muscles, all areolar tissue and lymphatics from the axilla, all the subcutaneous tissue from the anterior and lateral walls of the chest on the affected side, including the subcutaneous tissue of the epigastric triangle.

This operation is a very extensive one, but if performed in a skilful manner is one of the safest known to surgery. The time spent at the operation will probably vary from forty to sixty minutes according to the lean or fat condition of the patient. The amount of blood lost will be negligible, if the dissection is carried out from above downwards and all blood vessels are secured before their division. Shock will be trivial or non-existent, if proper steps are taken to prevent evaporation from the operation area.

In my practice the mortality of this operation has been nil, although I have performed it more than a hundred and fifty times, and have, on five occasions, removed both breasts at one "sitting."



The patient will have perfect, or almost perfect, use of the arm on the affected side if no restraining bandages have been applied, and if she has been encouraged to use it freely from the day after the operation. The patient should be examined every three months during the first two years subsequent to the operation and then at least twice yearly for another three years. She should be referred to the surgeon if the least sign of nodules in the skin or enlargement of glands is found or if she complains of pain in the spine or sternum, etc.

When speaking of ultimate results it is impossible to give a definite percentage of cures, as it is impracticable to follow up for years all a surgeon's cases, and we know that recurrence may be deferred for twelve years or more, or may take place within a few months of the operation. All I will say is that I know of many of my patients who are free from recurrence for periods varying from two to sixteen years, but I also know of several who have succumbed to the disease at periods varying from six months to thirteen years after the radical operation.

Before proceeding to the complete removal of the breast, should any direct inspection of the tumor be made, either macroscopic or microscopic? In a case like the present one, where the "orange skin" sign is demonstrable, we may, with perfect confidence, proceed to the complete operation, but if the only sign were a hard lump, it would be wiser to remove this lump first and have it examined before proceeding any further. A cyst should never be tapped; it should be carefully excised and submitted to a rigorous microscopical examination, as the walls of many cysts are malignant. When dealing with recurring discharge of blood from the nipple, especially if it can be excited by gentle massage of the breast, the radical operation should be performed, as the most careful examination of the whole breast, by serial sections, or at least by very numerous sections, may be required before malignancy can be affirmed or denied.

What cases of cancer are not suitable for the formal radical operation, as described? When signs or symptoms of internal metastases are present, or when the glands above the clavicle are extensively involved, it is wiser to modify our procedure and be guided by various considerations which apply to individual patients.

Can surgery do anything for recurrences? Intrathoracic and intra-abdominal metastases are beyond our present powers, as they are generally multiple. Local or glandular recurrences can often be usefully removed by a well-planned dissection, reinforced

by subsequent radiation. That something can be attempted usefully, even for osseous metastases, the patient in the adjoining bed demonstrates beyond any reasonable doubt. This patient is now thirty-four years of age and is unmarried. Just over two years ago her left breast and pectoral muscles, etc., were removed for cancer which was situated in the upper and outer quadrant and had involved the axillary glands. Four months ago she came to me complaining of a "boring" pain in her sternum. A hard painful nodule, about the size of a large pea, could be seen and felt in the body of her sternum. The skin over it was not adherent or discolored. We arranged for her admission to hospital, but she did not avail herself of this until two months had passed. By this time the nodule had increased considerably in size and had involved the skin over an area as large as half-a-crown. We could not discover signs of any other metastases.

The treatment adopted was the insertion of six needles containing, in the aggregate, twenty-four millicuries of radium emanations. Some of the needles were inserted subcutaneously, whilst some were thrust into the infiltrated bone. The six needles were left *in situ* for forty-three hours. In twenty days the nodule had completely disappeared, but the skin, over an area the size of a five-shilling piece, was reddened and blistered. This reddening and blistering was due to a too prolonged application of the radium, and a more perfect result might have been obtained if a shorter exposure had been employed. The present condition of the patient, two months after the insertion of the needles, is very good. There is no sign of any nodule, no pain, and the only abnormality is a brown, congested area of skin due to the action of the radium. This discoloration is gradually disappearing, and we will watch with great interest the future progress of the case.

I may mention that I have under my care at present a patient who presented symptoms and signs of a metastasis in the body of her fifth dorsal vertebra, four years after operation for the removal of a breast cancer. This metastasis we have radiated on two occasions, with an interval of four months between the exposures. Specially made long, obturated needles, carrying tubes filled with the emanations of radium, were thrust forwards and inwards between the heads of the fifth and sixth ribs on each side, until the obturated ends were felt to impinge upon the diseased vertebral body. On the first occasion twenty millicuries were applied for a period of twenty-four hours, and on the second occasion twenty-five millicuries for a smaller period. This

treatment undoubtedly gave relief from pain, following the first application, and probably hindered the growth of the cancer in the vertebra, but unfortunately numerous metastases have lately made their appearance in other situations, such as liver, etc., and further surgical treatment has been abandoned.

In conclusion, I would urge you to remember the following extremely important facts:

(1) The only *early* sign of cancer of the breast is the presence in it of a hard lump, or, in a very few cases, the presence of recurring hæmorrhage from the nipple, either with or without the presence of a palpable tumor.

(2) All other signs and all symptoms, such as pain, weakness, etc., are *late* signs and symptoms. If you persist in waiting for them to appear, before you advise a thorough exploration of the tumor, you will, in the majority of cases, render futile the most radical operation which has yet been devised.—*Medical Press*.

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#### A Simple Method of Extracting Foreign Bodies from Deep Wounds

P. Lacroix, in *Bulletin de l'académie de médecine*, describes a procedure likely to prove effective and useful in the numerous cases of gunshot wounds in which small foreign bodies, such as splinters of bone, fragments of metal, and bits of clothing carried along by the entering bullet have become deeply imbedded and caused protracted suppuration, remediable apparently only by an extensive and therefore more or less serious operation. The author's simple procedure, which was employed with success in a number of cases, consists merely in deep injection, in the sinus through which discharge is taking place, of a small quantity of hydrogen dioxide solution. After probing the sinus a narrow but long drainage tube is introduced down to the point where the foreign body is believed to lie. Two to five c.c. ( $\frac{1}{2}$  to  $1\frac{1}{4}$  dram) of hydrogen dioxide solution is then injected through the drain. The copious liberation of oxygen taking place at the terminal blind end of the sinus loosens and drives out through the drain the foreign body or bodies previously inaccessible. The energy of the gas set free is often sufficient even to expel pieces of metal from the sinus. Where the first attempt is unsuccessful, subsequent introduction of hydrogen dioxide rarely fails to produce the required result.—*N. Y. Medical Journal*.



## Reports of Societies

### AMERICAN PROCTOLOGICAL SOCIETY

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We have abstracted the following from the report of the Seventeenth Annual Meeting, San Francisco, June 21 and 22, 1915.

#### RECTAL PROLAPSE AND ITS MECHANICS.

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BY WM. M. BEACH, M.D., OF PITTSBURG, PA.

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The terms prolapse and procidentia are interchangeable as applied to a dislocated rectum downward on account of defective anchorage.

Dr. Beach feels assured that many of the victims of dyschezia could give a history of prolapsus in childhood.

He states that we are coming to think of prolapsus in terms of hernia.

Under the head of "Treatment," he describes his operation of choice.

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#### CAUSE OF DISSATISFACTION WITH HEMORRHOIDAL OPERATIONS.

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BY ROLLIN H. BARNES, M.D., OF ST. LOUIS, MO.

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The reason for dissatisfaction with the text-book methods in the operative treatment of hemorrhoids is that pace has not been kept with modern surgical knowledge in regard to the control of this hemorrhage.

It is easier to take care of primary hemorrhage than of secondary bleeding, such as may occur from a slough following the ligature or the clamp and cautery operation.

In the methods of Dr. J. Rawson Pennington and the author, a clean excision of the hemorrhoid is done, so that it requires only controlling the primary hemorrhage, for there is no slough. There is also less pain in these open methods.

For the control of hemorrhage the author advocates the use of pressure. Also care should be taken of the bleeding vessel itself rather than a ligature tied around a mass of bleeding tissues, or cauterization.

The author opposes the customary purgation in the preparation of the patient before operation. He prefers the cold enema as a means to clean out the lower bowel. He contends that the daily enema in the after-treatment does not result in constipating the patient, but rather aids in securing regularity of bowel action.

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#### REPORT OF CASE OF CARCINOMA OF THE SIGMOID: WITH STEREO-RADIOGRAMS.

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By WALTER I. LEFEVRE, M.D., OF CLEVELAND, OHIO.

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Patient, male, age 55 years. Suffered with abdominal pain in the left iliac fossa for one-and-a-half years. Complained of constipation, becoming gradually worse, until a natural passage was impossible. Use of enemas resorted to, but difficult to retain.

Stereo-roentgenogram made by injecting Barium Sulphate emulsion (consisting of Barium Sulphate, 6 oz.; Pulv. Gum Tragacanth, 2 drams; Aqua, 40 oz.). This would start to be expelled when about 10 oz. was injected, but by repeated efforts 30 oz. was finally injected and retained long enough to get the pictures. Some of the emulsion passed to the upper end of the ascending colon; the transverse colon was filled; the descending partially filled; the sigmoid and rectum entirely filled. The pictures show the sigmoid loop bound down in the pelvis and almost occluded. Operation confirmed the findings. Condition hopeless. Patient died.

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#### EMETIN HYDROCHLORIDE IN THE TREATMENT OF AMEBIC DYSENTERY.

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By GEO. B. EVANS, M.D., OF DAYTON, OHIO.

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Amebic dysentery is epidemic in tropical regions. It may become endemic by importation.

The author believes that treatment by irrigation is a thing of the past. It has been supplanted by emetine hydrochloride hypodermically.

Diet and rest are very important in treatment.

The conclusions are that what quinine is to malaria, and mercury to syphilis, emetine hydrochloride, hypodermically, is to amebiasis.

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### WHICH IS THE BEST ANESTHESIA TO BE USED IN ANAL AND RECTAL SURGERY ?

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BY WM. H. KIGER, M.D., OF LOS ANGELES, CAL.

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Dr. Kiger was prompted to write this paper on seeing a statement in a recently published book on "Diseases of the Rectum and Colon" which read: "Spinal anesthesia has a very limited field of usefulness. Indeed, one is hardly ever justified in using it in rectal work."

After a personal experience in over five hundred rectal operations without a single unpleasant result, the writer of this paper is constrained to differ from the text-book author, and is forced to the opinion that the latter has not given spinal anesthesia a fair trial, or that he, mayhaps, did not use the proper agents.

Dr. Kiger called the attention to the ease of administration of spinal anesthesia; that it may be given without the assistance of an expert anesthetist; that it saves time by doing away with the delay incident to an operation under a general anesthetic; that by its use the dangers of chloroform and ether are eliminated, as are also their after-effects; that when it is employed there is no need to dilate the sphincters, as all the operator has to do is to ask the patient to strain and the gut will easily protrude through the relaxed sphincters; and, finally, that it avoids shock.

He uses novocain or tropococain.

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### FURTHER OBSERVATION ON THE TREATMENT OF PRURITUS ANI BY AUTOGENOUS VACCINES.

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BY DWIGHT H. MURRAY, M.D., OF SYRACUSE, N.Y.

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In making the fifth report of his original research work on Pruritus Ani and Pruritus Vulvæ, Dr. Murray gave the results of the examinations concerning the etiology of twenty-one addi-



tional cases, together with their treatment, complications, and present condition. He also reported further on the cases previously examined, treated, and reported.

He believes that he is still justified in emphasizing the claim that most cases of Pruritus Ani and Vulvæ are due to a local infection which may be benefited by treatment with autogenous vaccines.

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### THE ULTIMATE NERVOUS RESULTS OF ACUTE ANGU- LATION OF THE SIGMOID, AND THE CONSE- QUENT FECAL STASIS.

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By WM. H. AXTELL, M.D., OF BELLINGHAM, WASH.

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Dr. Axtell divides the nervous end results into three general types:

- (a) Severe type: Including acute mania;
- (b) Moderately severe type: Including melancholia; chronic sciatica; chronic lumbago; trophic corneal ulcers;
- (c) Mild type: Including eczema; the apathetic; the neurasthenic.

He was not prepared to say whether or not the angulations found were the cause of the fecal stasis, or the stasis the cause of the acute angulation. These conditions, however, were found in all of those cases, and the nervous conditions which were produced disappeared upon correction of the angulation and stasis.

Dr. Axtell's conclusions are:

(1) Many cases treated as typhoid fever are simply cases of constitutional and systematic infection from putrefactive toxins of the alimentary canal.

(2) If the true condition were recognized at the outset, and if the colon were thoroughly cleansed of the soil for the growth of typhoid bacteria, there would be fewer cases of typhoid fever.

(3) Physicians do not as a whole examine the rectum and colon with the same degree of precision that they do other parts; they do not have a true appreciation of its importance; nor do they comprehend what persistence is required to empty the colon.

(4) We are all too much inclined to cling to precedent, rather than to act according to the conditions found.

## NOTES ON RECTAL FISTULA.

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BY J. RAWSON PENNINGTON, M.D., OF CHICAGO, ILL.

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(a) Prophylactic Treatment.—A complete history and careful examination usually elicits the fact that practically every individual who has fistula has or has had hemorrhoids, cryptitis, fissure, pruritus ani, proctitis, or some other form of curable rectal disease. These conditions favor the invasion of peri-rectal tissues with pyogenic organisms, which is usually followed by an abscess and fistula. Hence, if people were educated to keep their rectums in a healthy state, and did so, fistula would become less frequent.

(b) Abortive Treatment.—The time to abort fistula is during the infection or abscess stage. If the abscess is opened early and the pus allowed to escape, and the abscess wall is not interfered with in any way with instruments or drugs, but the cavity drained freely, and gently filled with subnitrate of bismuth ointment, and this treatment repeated every two, three or four days according to the indications, fistula will, as a rule, be aborted.

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### The War and Psychiatry

Isabel Emslie notes that the war has not made any increase in insanity as far as civilians are concerned. Among those in which insanity may be said to have been caused by the war, the great proportion of cases are those people who have had previous attacks and those who are weak-minded or very highly strung. Few normal persons seem to have been affected. Many of the admissions to the asylum show that though their psychoses were not actually caused by the war, nevertheless this was playing a large part in evolution. This factor was very noticeable in the admissions which occurred in the first month or two after the commencement of the war. It has gradually become less and less frequent, till now it is rarely seen. The mental shock of the war is apparently not so keenly felt now by the unstable mind as when the blow first fell. Of patients already suffering from psychosis when the war started, it could not be said that one had a relapse which might be traced to the war. The patients who were most affected were the paranoiacs, who, though they apparently had a normal outlook on the war, really had their own distorted views of it and had developed many and varied delusions.

—*Edinburgh Medical Journal.*

## Editorials.

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### CANADIAN PUBLIC HEALTH ASSOCIATION

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The Canadian Health Association was organized in 1911 when the first meeting was held in Montréal. Although there is a larger association in which Canadians are much interested—the American Health Association—the new society for Canada is already a pronounced success. The third meeting, held in Regina in 1913, was one of the most successful medical meetings ever held in Canada. It was decided that the fourth meeting should be held in the Twin Cities of Port Arthur and Fort William in September, 1914. The local committees of those cities had worked very strenuously to make it a success, but the war practically made it impossible to hold the meeting in those cities, and it was called off.

The Executive Committee, composed of Dr. M. M. Seymour, of Regina, President; Dr. Lorne Drum (Major), of Ottawa; Drs. George Porter, Charles Hastings and Duncan Anderson, of Toronto, and Dr. Peter Bryce (for Dr. Hodgetts), of Ottawa, decided to hold a meeting this year in Toronto, September 3rd and 4th, during the first week of the Canadian National Exhibition. Those attending the Toronto meeting may also attend the meeting of the American Association, which will be held in Rochester, N.Y., the following week, September 7-10. The following subjects will be discussed: Sewage disposal, water purification, organic waste from factories, tuberculosis, medical inspection of schools, milk, housing, and the care of the mentally defective.



### JOHN HUNTER AND HIS WAR EXPERIENCE

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Sir Watson Cheyne, in his Hunterian address, confined his remarks chiefly to the surgery of the war, but he also talked a little about Hunter. He said that John Hunter himself had some experience of war, and wrote an interesting article on gun shot wounds, referring especially to the influence of the velocity of the bullet on the nature of the wound. Major Howe, of the R.A.M.C., has collected a few facts regarding his war service. Hunter accompanied the British expedition to Belle Isle in 1761. In attempting to land a force on the Island 500 men were wounded, and Hunter was chief in attendance on them. He had further war experience in a struggle for a few months during the following year. After this he remained intimately connected with the army for many years. In 1776 he again went on active duty, and in 1790 became head of the Medical Department jointly with Sir Clifton Waitringham. In 1793 some months before his death he became sole head of the Medical Department of the Army, and was really the First Medical Director-General of the Army.

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### ANTI-TYPHOID VACCINATION

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England has probably as many cranks in proportion to her population as any other country in the world. A number of these have formed what they call the National Anti-Vaccination League. This league is now endeavouring to inflame the popular mind against preventive typhoid inoculation. Many people think that under the circumstances the members of this body are traitors.

We are told by the *Medical Press and Circular* that Dean Inge of St. Paul's holds well pronounced opinions on the subject. In answer to a sheaf of pamphlets the Dean addressed the following letter to Lieut.-General A. Phelps, the head of the League: "Sir,—I cannot imagine a more disgraceful or unpatriotic agitation than that in which you are engaged. If I were at the head of affairs I should have you shot summarily. Yours faithfully, W. R. Inge."

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### MEDICAL AFFAIRS IN RUSSIA

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We learn with considerable surprise and much regret that there is much disease in Russia, both in and outside the fighting zone.

The *New York Medical Journal* of July 10th tells us that even before the war the supply of doctors was inadequate. The numbers of course have not increased during the war, and in many parts of the country conditions are becoming very serious. There is now an appalling mortality from epidemic diseases, of which scarlet fever, smallpox, typhus and typhoid fevers are the most prevalent. The suppression of the Vodka traffic has not proved an unmixed blessing, as there are many fatal cases of poisoning from methylated spirits. The journal also adds that the deficiencies of the military hospitals in their arrangements for the troops are disgraceful.

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### ST. ANDREW'S CANTEN

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The ladies, numbering about 100, who voluntarily conducted the canteen for the soldiers in Exhibition Park, Toronto, did excellent work. The chief officers were Mrs. H. D. Warren, President; Mrs. Loosemore,

Convener, and Miss Constance Laing, Secretary. The total receipts amounted to \$81,850. The expenses of equipment, supplies, wages to paid staff (32 men and women, many of whom would otherwise have been out of employment), amounted to \$61,743. As their primary object was to benefit the soldiers they considered that all profits should be expended in adding to their comfort and equipment. Therefore, the profits have been spent as follows: Five field kitchens, subscriptions to camp bands, comforts for the Canadian troops, including the wounded in England, literature on trains, transports, etc., and \$5,300 in cash to units for use at the front.

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### THE NEED OF CENSORSHIP

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The press censorship on account of the war is admirable from a military standpoint, but it keeps us very much in the dark respecting the movements of our friends who have gone to the front, and particularly those who are in the A.M.C. Service or other sorts of active duty. There were for instance rumors afloat several weeks ago to the effect that No. 4 General (University) Hospital Staff was being broken up. So far as we can learn there was no such decision arrived at. We believe, however, that their nurses were taken on their arrival in England and sent to different parts of England and France until the preparations were complete for moving the unit across the Channel, but while waiting in England most of the physicians were sent to different localities where help was needed. For instance, Royce and Ryerson went to the Horse Guards; Chambers was given work in London; Gallie, Pearse, Armour, Gaby, Imrie and Fletcher went to the London Hos-



pital; Brodie, McKenzie and Caulfeild were doing special work in pathology in London; Malloch, Wilson and McPhedran went to Aldershot; Smith, Hewitt and Sharpe went to Woolwich; McVicar to Taplow; Graham to France, while Primrose, McKeown, Parsons, Hendry, Watson and Boyer were doing "Board Work" at Moore Barracks.

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### SURGERY IN THE WAR

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Nearly all the medical journals, and also surgeons actively engaged, tell us that surgery on the battlefield in the present war is different from what was expected. Bullet wounds were not feared, and it was supposed that aseptic dressings would be satisfactory. It turns out, however, that what may be called Listerian methods produce better results.

Dr. William Hendry (Lieut.-Col.) when last heard from was on "Medical Board Work" at Moore Barracks, Shorncliffe. He recites many interesting cases, and says that the peculiar vagaries of the rifle bullet and shrapnel are frequently remarkable. They had several cases of rifle bullets entering below the ear on the left side of the face and emerging in front of the ear behind the right jaw with very little injury resulting. There are some instances of bullets entering the temporal region on one side and emerging in the same region on the opposite side with no effect except some dimness of vision in one eye. He says that "Providence certainly has looked well after many of the poor fellows, for their escapes have been nothing short of miraculous." Code who used to play cover point for Varsity Hockey Club came before the Board in the latter part of June. He has lost the sight of his right eye from a piece of shrapnel.

## NEWS ITEMS

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At the last meeting of the Canadian Medical Council, Dr. Robert J. Gibson, of Sault Ste. Marie, was elected President, and Dr. John Stewart, of Halifax, Vice-President.

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### Medical Council of Canada

The examinations of the Medical Council of Canada will be held in Montreal and Halifax coincidently on October 12th. Those wishing to register for the examinations are requested to apply to the Registrar, Dr. R. W. Powell, Ottawa, on or before September 14th.

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### Ontario Medical Council

An election will be held to elect a representative in the Ontario Medical Council in the place of Dr. MacArthur, of London, deceased, on October 1st. Nominations will be received up to September 13th by the returning officer, Dr. E. Williams, London, Ontario.

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### Dr. Mayer Resigns from the Staff of the "Centralblatt Für Laryngologie"

In a recent issue we noted that the editor and publisher of the *Internationales Centralblatt für Laryngologie* had removed the name of Sir Felix Semon from the title page, because of his expression of opinion as a naturalized English citizen regarding "Germany's barbarous warfare." As this action destroyed the journal's claim to be international in character, as a protest against the introduction of politics in a scientific journal and in loyalty to a man who has done so much for laryngology, Dr. Emil Mayer of New York City, who for the past sixteen years has been the collaborator for America, has tendered his resignation to the editor of the *Centralblatt*.—*Medical Record*.

## WAR ITEMS

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Dr. Herbert A. Bruce (Lt.-Col.), Toronto, left for the front July 30th.

It is stated that the loss among the surgeons of the German Army during the first six months of the war was heavy, 55 being killed, 216 wounded, 40 made prisoners, 94 missing, and 29 died of disease.

During the latter part of July there was a grand Red Cross rally in Oshawa, directed chiefly by Dr. T. E. Kaiser. Among those who assisted were Dr. G. Sterling Ryerson (Surg.-Gen.) and the Rev. Dr. Patterson, of Toronto.

The White Company, of Cleveland, Ohio, have presented No. 4 General Hospital (Tor. Univ.) with a motor truck, and the Daughters of the Empire, of that city, have given to the same unit a fine motor ambulance.

The Third University Company is at full strength, and left for Montreal on their way to the front August 5th. We understand that other companies are being formed, the Fourth being nearly at full strength at the time of writing.

A curious story comes from Zurich, Switzerland. The number of cases of Asiatic cholera in the Austrian army on August 1st totalled 629. Among those who succumbed to the disease was Gen. Von Ziegler, who was the only officer of the entire staff who refused to be vaccinated against cholera.

Capt. Pequeagnat, the representative of the Canadian Y.M. C.A. at the front, speaks as follows about our friend, Dr. Ross: "Lieut.-Col. E. A. Ross, M.P.P., is a true type of Canadian soldier. He is respected and loved, and is making a name for himself without intent or thought for selfish motive. There is no braver soldier or more capable officer among the medical men now at the front."

We are glad to announce that Dr. G. S. Ryerson (Surg.-Major) has greatly improved in appearance since his return from the front. He has been endeavoring to rest a little at his Summer residence at Sturgeon Point, but he has been able to accomplish much good work during this holiday time of his. He has delivered a number of addresses in Toronto, Oshawa, and many other towns in Ontario.



### Russian Wounded and Medical Officers Burnt Alive

The report of the war correspondent of the *Novoe Vremya* from the Galician front, as quoted in the *Times* of July 7th, should be recorded as widely as possible, if only that a refutation may, if possible, be elicited. The Russian journalist says: "For some time persistent rumours circulated here which seemed to me incredible, so terrible they were. Now I hear on all hands that those rumours are true, and that an authentic report has been sent up to Petrograd. We brought with us a large number of infectious cases from the Carpathian Mountains and left them temporarily in a Jesuit college at Chyrow. They fell into the hands of the Germans, who removed them to an isolated wooden barrack, together with their medical attendants, shut all the windows and doors, poured paraffin over the building, and fired it. More than a hundred were thus burned alive. The Germans do not deny this fact. I have the authority of a number of our officers, who have seen proclamations thrown over our positions by German aeroplanes, in which they point out that they were forced to resort to that cruelty by stern necessity—in order not to carry infection into their army and also to teach the Russians not to leave their sick and wounded behind them, thus burdening the German medical staff. The proclamation expresses the hope that the Russians will learn from the lesson."—*The Lancet*.

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### Relaxation of Recruiting Rules

The War Office has instructed the recruiting authorities in Birmingham that men who have been rejected for slight causes, such as defective teeth, weak eyesight, or minor physical faults, are to be invited to submit themselves for re-examination, and that in future no man who is organically sound is to be refused. Those not up to the standard for an active service battalion are to be placed in units for home defence or garrison duty, thus releasing adequately fit men for active service.—*The Lancet*.

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### Sir John French on the Army Medical Service

It is gratifying to note that in his recent dispatch, dated June 15th and published in the *London Gazette* of July 10th, Sir John French has again occasion to commend the Medical Services in the field. He says:

"I have much pleasure in again expressing my warm appreciation of the admirable manner in which all branches of the Medical Services now in the field, under the direction of Surgeon-General Sir Arthur Sloggett, have met and dealt with the many difficult situations resulting from the operations during the last two months.

"The medical units at the front were frequently exposed to the enemy's fire, and many casualties occurred amongst the officers of the regimental medical service. At all times the officers, non-commissioned officers and men, and nurses carried out their duties with fearless bravery and great devotion to the welfare of the sick and wounded.

"The evacuation of casualties from the front to the base and to England was expeditiously accomplished by the administrative medical staffs at the front and on the lines of communication. All ranks employed in units of evacuation and in base hospitals have shown the highest skill and untiring zeal and energy in alleviating the condition of those who passed through their hands.

"The whole organization of the Medical Services reflects the highest credit on all concerned."—*The Lancet*.

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### Women and War

From the beginning of the war the women of the medical profession volunteered for service in every direction, and they have done great work both at home and abroad. In France and in Serbia women have supplemented notably the work of men in the hospitals or have accepted lone responsibilities in a manner which has received on all sides the praise which it has justly merited; and it is certain that in this way a strong impulse has been started among women to join the medical profession. It is seen to be a career in which satisfaction may be obtained for the natural desire for distinction, while professional ability will command an income and scientific work will receive recognition. The Royal Free Hospital, which was the first general hospital in London to open its door to women students, and which accordingly became the clinical centre of the London School of Medicine for Women, has trained a very large number of medical women who have volunteered for service in connection with the war. The hospital itself placed two wards at the disposal of the military authorities and converted the large new out-patient department into a military hospital for some 200 patients. Many

former students of the hospital assisted in forming both in Belgium and in France various military hospitals, and some of these were staffed by medical women only. The work done by these hospitals has been recognized as of the greatest value, and now Dr. Louisa Garrett Anderson has been placed in command of a military hospital in Endell Street, London. Several hospitals in Serbia also have been under the care of surgeons, students, and nurses from the Royal Free Hospital. But it is not the medical women or the nurses from this hospital only who have done useful war service, for from every school where women are trained for the medical profession, and from every hospital in the country where their services are employed, offers have come of help in some way or another, and women practitioners from all parts of the kingdom have given their assistance whenever and wherever they were required.

In the nursing profession the same desire to help in the national crisis has been shown. Women here have done their work in the most trying and dangerous circumstances with courage, and have borne on many occasions intense suffering with fortitude. Those nurses, also, who have remained at home have made many sacrifices, and have worked at great pressure owing to the depletion of their numbers by the urgent calls for help at home and abroad. To fill the gaps thus produced in the ranks of nursing, women of various social grades have volunteered, and here a word of praise must be given to our voluntary hospital authorities who have trained at short notice all suitable applicants under a modified course of instruction designed to make previously untrained women of value in many emergencies. The mischief of a shortage of nurses has thus been partly avoided, though it would have been felt far more severely had not the country been able to draw on the assistance of the Voluntary Aid Detachments, the character of whose work has been good. It has, indeed, been so good that we might think, having the utility of these volunteers in our mind, that modern professional nursing calls for an unnecessary amount of training, until we realize the enormous difference between being useful under direction and being competent in all circumstances. The idea that the half-trained can replace the fully trained, which has sprung up in some economical minds owing to the success of the nurses of the Voluntary Aid Detachments, had better be forgotten forthwith. Many of our estimates of value made during the time of war will have to be revised when normal conditions prevail and the extreme hardship and difficulty of nursing will make it cer-



tain that not many women will engage upon it as a career without going through complete training.

After the war it is certain that the scope of women's work in medicine and nursing, in sanitation, as health visitors, and in teaching, will be immensely widened. We think that the gloomy deductions from the increase in the infant death rate in some localities are premature, but there can be no doubt that efforts will have to be made to keep the population healthy and to conserve life in every possible way. Just how far the increased activity of women in all spheres of life may react upon the birth rate is a disputed question, but women are sure to be employed in combating any evils which may result from a low birth rate. Medical women will find fields of congenial work in the treatment of diseases peculiar to women and children, and as medical officers for children's clinics in connection with a proper system of inspection in regard to child life, while midwives and nurses will obtain many fresh opportunities for exercising their callings. Sanitary inspectors and health visitors will also be needed, and in these departments women will play an increasing part. In the teaching profession scope will be found for medicine in the education of physical defectives and in the imparting of domestic hygiene. The extension of women's sphere in medicine thus foreshadowed is taking place, and the part which they will be called upon to play in the years that follow the signing of peace is of extreme interest. So many of the women employed in attending the wounded, whether as doctors or nurses, have acquitted themselves with more than credit that it is sure that many others will want to follow in their professional footsteps: but the employment of large numbers of women in any occupation outside the sphere of the home has an important bearing on the very *raison d'être* of the medical profession itself—namely, the health of the nation. It looks as though the far-reaching work, falling under the designation of medical, that may be done by women in the immediate future, will be the starting-point of great social readjustments.—*The Lancet*.

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### Spanish "Intellectuals" on the War

The manifesto of the ninety-three German "intellectuals," which was so startling a revelation to the world of the true nature of Teutonic "Kultur," called forth vigorous replies from leaders of thought in this country, in France, Russia, Portugal, Roumania, the United States, and Brazil. Quite recently the "intel-

lectuals" of Spain have joined in the denunciation of the German manifesto. In a declaration signed by the foremost representatives of science, medicine, philosophy, literature, and art, they warmly profess their sympathy with the cause of the Allies as representing the ideals of justice. "Our conscience," they go on to say, "condemns, wherever they occur, these deeds which degrade human dignity, and the respect which men owe each other even in the fiercest excitement of war." They hope that the triumph of the cause which they hold to be just will "establish the essential qualities by means of which each people, great or small, weak or strong, has brought human culture into being, will destroy the ferments of egoism, domination, and shameless violence which are the causes of catastrophe, and will firmly cement a new international fraternity in which force will fulfil its object, which is to safeguard right, reason, and justice." The signatories state that they have been moved to break silence because, owing to the pusillanimity of her politicians, Spain has been made to appear as if she held herself aloof and feared to express any opinion on the great issues now being decided in this supreme moment of the world's history. This declaration will be welcomed by the countries which are fighting for the cause of civilization and the liberation of the world from an attempt to crush it under the heel of Prussian militarism. Hitherto Spain has, owing to a particularly active German propaganda, political and commercial, and to other causes which need not be discussed here, appeared to be pro-German in her sympathies. The manifesto from which we have quoted will serve to redeem her from the reproach of being on the side of barbarism. To us it is a matter of special satisfaction to see the names of many distinguished representatives of Spanish medicine in the list of signatories.—*British Medical Journal*.

## Personals

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Dr. Charles Tupper, M.D., who lives in retirement at Bexley Heath, Kent, England, celebrated his 94th birthday July 2nd.

Dr. J. M. Sifton (Tor. '90), who practised in Jamestown, N.D., for some years, has removed to Portland, Oregon.

Dr. Oscar Teeter (Tor. '91) has removed from Villa Nova to Amherstburg.

Dr. W. W. Saulter (Trin. '91) has removed from Spencerville to Ottawa.

Dr. McBride (Tor. '92) has removed to Grand Rapids, Mich.

Dr. E. F. McCullough (Tor. '92) has removed from Everton to Rockwood.

Dr. J. C. Warbrick (Trin. '94) is now located at 306 East 43rd Street, Chicago.

Dr. Duncan McCallum (Tor. '96) has removed from Crestline, O., to New Dayton, Alta.

Dr. F. J. Weidenhammer (Tor. '96) has removed from Hawkesville to Waterloo, Ont.

Dr. H. LeBarre has removed from Glanford, Ont., to Mansfield, Ont.

Dr. Thomas McColl has removed to Tilbury, Ont.

Dr. D. C. Mackenzie (Tor. '04) has removed from Toronto to Bellevue, Alta.

Dr. J. A. McComb (Tor. '04) has removed from Millbank to South River, Ont.

Dr. P. J. McCue (Tor. '04) has removed from Crediton to Gull Lake, Sask.



Dr. R. J. R. McCulloch (Tor. '04) has removed from Orillia to Belleville.

Dr. J. M. Dalrymple, formerly of Fenwick, is now located at 1032 College Street, Toronto.

Dr. J. D. MacPhee (Tor. '10) has removed from Brecken to Port McNichol.

Dr. F. C. Harrison, Toronto, spent the latter part of July at Go-Home Bay.

Dr. A. D. McArthur (Tor. '07) has removed from Greenbank to Blackstock.

Dr. G. L. McCabe (Tor. '08) has removed from Watertown to Windsor.

Dr. Harley Smith, of Toronto, spent the greater part of July in Dansville, N.Y.

Drs. J. Milton Cotton and George McDonagh, of Toronto, visited Manitoulin Island in July.

Dr. Edmund E. King, of Toronto, spent the month of August at his summer home in Hastings.

Dr. W. B. Thistle, of Toronto, went to the Georgian Bay for his Summer holidays.

Dr. W. P. Caven spent the months of July and August at his Summer residence on Sturgeon Lake.

Dr. George, the District Officer of Health for North Ontario, spent part of the month of August in Toronto.

Dr. H. J. Hamilton, Toronto, visited Dr. W. P. Caven at his Summer residence in July.

Among those who have spent a portion of the summer on the Georgian Bay are the following from Toronto: Doctors Gibb Wishart, Geoffrey Boyd, F. N. G. Starr, Joseph Graham and Clarence Starr.

We understand that the doctors of Hamilton have also decided to purchase a machine gun.

Dr. V. E. Henderson (Capt.), Toronto, has charge of the alien prisoners' detention camp at Kapuskasing, Ont.

The Honourable Dr. W. H. Montague (Major), of Winnipeg, has gone to England to join the A. M. C.

Dr. Harry Morrell (Capt.), of Regina, one of the best-known of Trinity graduates in the West, is acting as pathologist in the Canadian Hospital at Cliveden.

Drs. J. Bryce McMurrich (Capt.), S. J. N. Magwood (Lieut.), of Toronto, and Dr. Herbert Bowlby (Lieut.), Berlin, Ont., left July 25th for the front with the R.A.M.C.

Dr. J. W. S. McCullough (recently promoted to the rank of Major), who is still in charge of sanitary matters at Niagara Camp, presided at a meeting of the several Civil Services of Ontario in the Parliament Buildings August 4th. It was decided to raise a fund for the purchase of a machine gun.

The late Mr. D. L. Simons, of Colborne, Ont., bequeathed to the Hospital for Sick Children, Toronto, a sum sufficient to endow two cots, to be known as the "D. L. Simons" and "Eliza Ann Simons" cots.

Dr. H. J. Way, who graduated M.D. from Toronto in '92, and was an Intern in Toronto General Hospital for a year thereafter, has practised in Chicago since '93. He has removed from 1064 West 12th Street to 3501 Jackson Boulevard, in that city.

Dr. Daniel D. Ellis (Viet. '85), of Fleming, Sask., was elected for a second term Grand Master of the Grand Orange Lodge of British North America at the meeting held in Winnipeg August 1st. The next meeting will be held in Toronto. Many of Dr. Ellis' old friends in this part of Canada will be pleased to see him at that time.

## Obituary

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### PETER GORDON MELDRUM, M.D.

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Dr. P. G. Meldrum died suddenly at Ayr, Ont., May 25th, aged 59. After graduating from Toronto University in 1881 he practised for many years in Whitby, and came to Toronto about five years ago. Heart failure is said to have been the cause of his death. He was visiting his brother in Ayr when his last illness came.

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### SIR WILLIAM GOWERS, M.D.

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Sir William Gowers, the distinguished neurologist, of London, died May 4th, aged 70.

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### A. D. McEACHRAN, M.D.

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Dr. McEachran, formerly of Glencoe, Ont., and for several years a prominent physician of Detroit, died July 10th, aged 41.

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### WILLIAM D. SPROULE, M.D.

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Dr. Sproule, formerly of Ottawa, died at Harlem, Montana, July 3rd, aged 32. He graduated from the University of Toronto in 1906.

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### JOHN H. MATHIESON, M.D.

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Dr. J. H. Mathieson died suddenly at his home in St. Mary's, Ont., May 10th, aged 71. He graduated from McGill in 1871, and at once commenced practice in St. Mary's, where he remained up to the time of his last illness.



## Book Reviews

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*A Manual of Diseases of Infants and Children.* By JOHN RUHRAH, M.D., Professor of Diseases of Children, College of Physicians and Surgeons, Baltimore, Md. Fourth edition, thoroughly revised. 12 Mo. volume of 552 pages; 175 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$2.50 net. Sole Canadian agents: The J. F. Hartz Co., Ltd., Toronto.

The fourth edition of Ruhrah's *Manual of Diseases of Infants and Children* contains the additions necessitated by the progress in our knowledge of the subject during the past three years. The more important additions are the sections on pellagra, the use of the soy bean in feeding, and the Binet-Simon test for children's mentality.

The essential nature of the book as a student's manual has not been lost sight of. For more extended information the reader is referred to larger works of reference or to original articles in the journals. The book is one that most admirably fulfills its function, and will, we are sure, continue to enjoy the popularity as a text-book that it has in the past.

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*International Clinics.* A quarterly of illustrated clinical lectures and specially prepared original articles. Edited by HENRY W. CATTELL, A.M., M.D., Philadelphia. Vol. II., 25th series, 1915. Philadelphia and London: J. B. Lippincott Company.

This volume is fully up to those which have preceded it. Some of the articles are classics of their kind and will rank with anything published. *International Clinics* is always a welcome visitor, and the editors are keeping it up to the mark in spite of war times. This number of the quarterly is full of meat, from which it would be difficult to pick out the best. However, we may especially commend Chambers' article on "Animal Extracts"; "Psychoanalysis," by Brill, and "Disuse Crippling," by J. J. Walsh.

*Modern Aspects of the Circulation in Health and Disease.* By CARL J. WIGGERS, M.D., Assistant Professor of Physiology, Cornell University Medical College, New York. Lea & Febiger, Philadelphia and New York, 1915.

This excellent work takes up the study of the heart in a thoroughly scientific way, and yet is practical enough to be of use to the practitioner of medicine. Every possible phase of disease of the vascular system is thoroughly dealt with, many of the observations being original with the author. Never does the book become ponderous, as translations are apt to do. One of the best American works published.

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*Amoebiasis and the Dysenteries.* By LLEWELLYN POWELL PHILLIPS, M.A., M.D., B.C. (Cantab.), F.R.C.P. (Lond.), F.R.C.S. (England); Professor of Medicine in the Egyptian Government School of Medicine, Cairo; Senior Physician Kasr-el-ainy Hospital, Cairo, etc. London: H. K. Lewis, 136 Gower Street, W.C. 1915.

A most valuable book at the present time is this treatise on the dysenteries. As the author truly points out these essentially tropical diseases are liable to break out in any clime, with modern methods and habits of travel, while the war has introduced new problems with its immense numbers of men being transported from all the ends of the earth.

The literature of the subject is reviewed, while the author from his own experience is able to present many new lights on the diseases. He emphasizes particularly the factor of the "carrier" in dysentery, as in typhoid, diphtheria and other communicable diseases.

We would judge this work will meet a most hearty reception, especially among those who are fitting themselves for army medical service.

## BOOKS RECEIVED

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*The Principles of Human Physiology.* By ERNEST H. STARLING, M.D. (Lond.), F.R.C.P., F.R.S., Hon. M.D. (Breslau), Hon. ScD. (Cambridge and Dublin); Jodrell Professor of Physiology in University College, London. Second edition with 566 illustrations, 10 in colour: Philadelphia: Lea & Febiger. 1915.

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*Outlines of Internal Medicine.* For the use of Nurses. By CLIFFORD BAILEY FARR, A.M., M.D., Instructor in Medicine University of Pennsylvania; Assistant Visiting Physician Philadelphia General Hospital, etc. Illustrated with 71 engravings and 5 plates. Philadelphia and New York: Lea & Febiger. 1915.

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*Cancer, Its Study and Prevention.* By HOWARD CANNING TAYLOR, M.D., Gynecologist to the Roosevelt Hospital, New York; Professor of Clinical Gynecology, Columbia University; Member of the American Gynecological Society, etc., etc. Philadelphia and New York: Lea & Febiger. 1915.

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*A Text-Book of Chemistry and Clinical Uranalysis for Nurses.* By HAROLD L. AMOSS, S.B., S.M., M.D., Dr.P.H. Formerly Chemist Hygiene Laboratory, United States Public Health Service; Physiological Chemist, United States Bureau of Chemistry, etc. Philadelphia and New York: Lea & Febiger. 1915.

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*The Principles of Bacteriology.* A Practical Manual for Students and Physicians. By A. C. ABBOTT, M.D., Professor of Hygiene and Bacteriology, and Director of the Laboratory of Hygiene, University of Pennsylvania. Ninth edition thoroughly revised. With 113 illustrations, 28 of which are colored. Philadelphia: Lea & Febiger.



## Selections.

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### NOTES BY A SURGEON ON ACTIVE SERVICE

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#### *Applications to Open Wounds.*

Iodine solution is apt to decompose, and is always objectionable on account of its staining and fuming properties. Convenient and equally useful substitutes are a 2% solution of picric acid, a 10% solution of salicylic acid, or a 20% alcoholic solution of methyl salicylate. These do not smart when applied, and are reliable in their antiseptic properties.

#### *Morphia Injections.*

It is often difficult, on the field, to obtain water for dissolving the ordinary tablets for hypodermic use carried in the dressing-case. In such circumstances the tablet may be put under the tongue of the wounded man—the so-called sublingual medication. A better expedient is to carry a small pocket bottle of morphia solution with an india rubber capsule over the mouth, similar to the bottles used for inoculation purposes. The needle of the syringe can be plunged through the india rubber, making a valvular opening that readily shrinks. I use omnopon solution, one grain in twelve minims, to which dose one-hundredth of a grain of atropine has been added, and I have found this solution most efficacious in the field.

#### *Thirst On the March.*

Smokers suffer more from thirst than any other details, and smoking should, therefore, be discouraged when water supplies are scarce or polluted. Cold weak tea carried in the water-bottles is perhaps the best thirst-quencher, but training is undoubtedly the best prophylactic. A man can be trained to go for several hours without water, or to content himself with occasional wetting of the lips and palate. Where water is suspicious or unobtainable, lime juice lozenges or gum jujubes flavored with some sour-tasting fruit juice are the best preventative of thirst. These should be handed out to the men on the march, with instructions to chew one occasionally when the thirst becomes severe.

*Enteric Inoculation After-effects.*

My experience goes to show that some of these effects can reasonably be ascribed to bad technique. If the needle pricks a vein, for instance, the after-effects are more often complained of than when the injection has been made subcutaneously. Too vigorous application of iodine, too, appears to promote the rapid absorption of the vaccine and to encourage anaphylaxis.

*Circumcision Under Local Anæsthesia.*

Major Porter describes a method of performing this operation which is extremely useful, since it is applicable to all cases that demand operative treatment. The technique consists in injecting 20 c.c. novocaine solution under the dorsal vessels at the root, and rotating the soft parts so as to make a ring of solution which is afterwards propelled by massage to the preputial orifice. Analgesia, complete enough to permit of the whole operation being painlessly performed, is complete after ten minutes, and the initial prick of the needle is scarcely felt.—*R.A.M.C. Journal.*

*Simple Treatment of Scabies.*

After billeting in infected houses or coming into contact with infected persons, this disease is not rare among details on active service. In civil practice the most usual treatment is isolation and sulphur inunction, with copious bathing. On active service such a method will never commend itself to the medical officer, yet if untreated these cases easily spread infection, and may incapacitate a whole company. The best way of dealing with the infection is to get the detail to take a warm bath where warm water is available (where it is not, he must use cold water and a liberal application of soap), and after that to paint him over with balsam of Peru. This application smarts a little, but is most efficacious, and kills the parasite in a few hours. A second application is hardly ever needed. Under this treatment the urine should be examined a few hours after the balsam has been applied.

*Venereal Disease.*

“There should be a weekly examination of all the enlisted men in the command made by the medical officers, and the company commanders should be required to be in attendance. A list of all the men found infected with venereal troubles should be made out under the direction of the company commander and

posted conspicuously on the bulletin board. Among those thus affected, only those who are actually incapacitated from performing their duties should be placed on sick report, the others being required to perform all duties. Canteen and all pass privileges should be withdrawn from all whose names are thus posted, and extra severe punishment meted out to those who are detected violating this rule. As soon as anyone thus listed is, in the opinion of the surgeon, free from all manifestations of venereal infection, the surgeon should notify the company commander, so as to enable the latter to take the man's name from the list. This course cannot be construed into actual punishment of the enlisted men, for the reason that taking away canteen and pass privileges is merely in the nature of removing causes that tend to retard recovery. A weekly inspection is necessary, as there is no other way by which it can be determined whether or not individuals are infected."—*General Order to American Troops during the Occupation of Cuba.*

#### *Dust and Smoke Conjunctivitis.*

A 1% ointment of yellow oxide of mercury is the most efficacious prophylactic against the conjunctivitis that gunners and men exposed to dust often complain of. I carry a supply of Parke-Davis metallic tubes, each of which contains a drachm of this ointment, and have found them most useful.

#### *The Importance of Good Boots.*

"Over 30,000 Germans were incapacitated for duty during the first few weeks of the Franco-German War on account of injuries to the feet, the greater number of these being due to the issue of footwear hardened by long storage in the depots. \* \* \* One of the best methods I know of breaking in a new pair of boots is as follows: Soak the boots in water until every part is pliable, don while wet over a thick pair of socks, and use them for a walk of several hours; they will then have acquired the exact shape of the foot at the end of the walk. The boots should then be removed, tightly packed with dry oats, and placed in a cool place in order to dry gradually. The outside should be given a coat of cod liver oil, which should be repeated several times at intervals. The oats are shaken out, and the boots will be found comfortable, as the oats have prevented shrinking, and no last can mould the inside of the boot as well as the foot itself."—*Captain Bridges, R.A.M.C. Journal.*



### A Judge and Professional Secrecy

In this country a physician has no privilege at law to avoid disclosing information acquired in his professional capacity. Like a great deal in our procedures, practice is governed by precedent and not by set rules. If a physician refuses to answer a question on the ground of professional confidence, the judge can at his discretion commit him to prison for contempt of court. In the rules laid down in ethical text-books for the guidance of physicians, it is pointed out that it rests with them to a great extent whether any one shall know whether they have information to give, and that in cases of crime they are neither expected, on the one hand, to act as detectives, nor, on the other, are they sheltered from blame if by their silence they aid crime. They are also told that, generally speaking, they are bound to silence in the interests of their patients. In the absence of any definite rule, difficulties naturally arise. The following is a recent example: A woman underwent operation for the production of abortion. Three physicians subsequently attended her in succession, and to one she confided the name of the operator. She died without any deposition being taken or any statement made on her death-bed which could be used as evidence in a court. Among her papers was found a letter making an appointment with a woman, who was arrested and charged with the crime. At the trial the judge pointed out that any statement made by the deceased to a physician was not evidence in the legal sense. He directed the grand jury (which in this country holds a preliminary investigation before a prisoner is brought to trial) not to find a "true bill." He said that the law provides in case of a person who is seriously ill or who in the opinion of a physician is not likely to recover that the evidence of such a person may be taken by a magistrate. Under the present circumstances, it was the duty of the physician to communicate with the police so that steps could be taken for the administration of justice. No one would desire to disturb the confidential relation between the physician and his patient, but there were cases in which the desire to preserve that confidence should be subordinated to the duty cast on every good citizen to assist in the investigation of crime. Here, as the woman was likely to die and her evidence likely to be lost, it was the duty of the physician to communicate with the police. The judge added that he was moved to make these observations because an opinion to which he was a party had been given twenty years before when he was at the bar and had been either misunderstood or misrepresented in a text-book

on medical ethics. Commenting on the judge's remarks, the *Lancet* "doubts if there will be any general agreement in the medical profession with his views." Returning to the subject in a leading article in a subsequent issue, our contemporary protests against the view that it is the physician's duty to violate professional confidence in circumstances which are not absolutely compelling. The keeping of the patient's secret, whether a guilty one or not, is a point of professional honor. The function of the physician is to save life, not to act the part of a detective. The revelation of patients' secrets would diminish or destroy all trust in the profession, and cause patients to seek treatment by the unqualified. The physician should discharge the duty of bringing a criminal to justice by every legitimate means. He should use his influence to obtain the patient's consent to this course. But if she refuses he should not set the law in motion except under the most unusual circumstances. It is noteworthy that a celebrated criminal judge, the late Lord Brampton, once expressed an opinion diametrically opposite to that of the judge in the present case. The moral of it all seems to be that English law is chaotic and badly in want of some system of codification, such as the Code Napoleon.—J. A. M. A.

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### **The Value of Aromatic Spirits of Ammonia in Anesthetization**

The basis for the use of aromatic spirits of ammonia in anæsthesia is its physiological action (Parsons, *Ther. Gaz.*). It accelerates the rate and increases the depth of respiration, increases the pulse rate, pulse force and arterial pressure as long as administered. It may be administered through the same apparatus as is used to administer the anæsthetic. In the first stage of narcosis, when the patient's breathing is so slow or shallow as to greatly delay the influence of the anæsthetic, a few drops of the drug causes the patient to breathe more deeply and more rapidly. Near the end of the first stage, when the breathing becomes very irregular, respiratory action is improved by the vapor of the aromatic spirits of ammonia. Or if at this time obstinate coughing or gagging or vomiting is present, the administration of the ammonia quickly overcomes these unpleasant conditions. When, in the transition from the first to second stage, the patient may become cyanosed or the muscles of the jaws spasmodically contracted, aromatic spirits offers a most valuable aid.

During the second stage of anæsthesia in those of unfavorable conditions or children, the co-administration of ammonia tends to lessen the degree of danger and is quite as efficient if not superior to oxygen. If a rapid, thready pulse and quick, shallow respiration should develop, a suspension of the anæsthetic and a drop by drop administration of aromatic spirits substituted, the patient's condition will improve. In other words, should the patient's condition become alarming at any time, use aromatic spirits. Finally, in the last stage of anæsthesia, when the operation is almost completed, the use of aromatics will bring a patient from under the influence of the anæsthetic as steadily as the ether causes him to go under.

Post-operative nausea and vomiting can almost without exception be prevented and controlled if the patient be allowed to inhale aromatics while coming out of the anæsthesia. The nurse may continue this procedure at the bedside as long as the nausea exists. Finally, in children or old people or those weakened by long operation, or where post-operative congestion of the lungs is to be feared, ten or twenty drops by mouth every few hours will result in unobstructive breathing.—*Medical Review of Reviews.*

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### Serum Treatment of Pneumonia

Roper (*Cornell Univ. Med. Bull.*) gives his experience in the treatment of 20 cases of pneumonia with a serum derived from a horse which had been treated with a vaccine containing five strains of pneumococci, including typical and atypical types. Two series of cases were treated, the first receiving very small doses subcutaneously, while in the second the doses approximated more nearly those advised at the present time given intravenously. In the first series there was no noticeable immediate effect, 13 out of 14 patients recovering, and, though there seemed to be an improvement in the general condition, the temperature curve showed no material change, and there was no shortening of the course of the disease. Of the 6 cases in the second series 3 died, and the total mortality of the two series was 20 per cent., which approximates the average hospital mortality. The same serum which was used in the first series was used for the first 3 of the second series, 2 of which defervesced immediately, while the third showed no immediate effect, though eventually recovering. The last 3 were treated with a serum from a horse treated as before with a vaccine containing five strains of pneumococci (including Neufeld I) and a *Streptococcus mucosus* isolated from



one of the cases, but no defervescence occurred. Of the 6 cases in the last series (with the exception of the 2 cases already mentioned) no defervescence occurred after injection, but some developed striking phenomena. Four had chills following within two hours after the administration of the serum, the temperature rising to  $108^{\circ}$  in one, and  $106^{\circ}$  in two of the cases, and dropping in a few hours to  $98^{\circ}$  and  $99^{\circ}$  respectively, but in all four cases the temperature returned in a short time to a high level, and the course of the disease was unaffected. Leucocyte counts were unaffected. Pneumonias may be divided into those due to typical and atypical organisms, the former being common and the latter uncommon. A polyvalent serum active against the typical varieties should show results in the great majority of cases. Although in two of the cases the abrupt termination of the disease on the administration of the serum was very striking, the probability that this was merely coincident with a natural defervescence must be borne in mind. While it is possible that in the cases having chills the serum had furnished bacteriotropins enough to cause phagocytosis and consequent lysis of the pneumococci, thus liberating sufficient endotoxins to cause the disturbance, so many factors enter into the interpretation of the result of therapy with a polyvalent serum that no conclusion can be arrived at. For the present attention should be confined to the action of high value serum on typical cases only until value in typical cases has been established, and strains from cases resisting treatment should be identified and classified.

---

### The Continuing Menace of Tetanus in the War Zone

Drs. Gudgeon, Gardner, and Bawtree have been investigating the bacterial flora of wounds produced during the present war and have published some of their findings in the *Lancet*, June 12, 1915. With regard to the occurrence of *B. tetani* they state of the eleven patients in whose wounds the bacillus of tetanus was found nine had been treated prophylactically with tetanus antitoxin at an early date and at no time did any one of these exhibit any symptoms of tetanus.

It is pointed out that it is of considerable importance to realize that a wounded man may be acting as a carrier of the bacilli of tetanus for at least two months after the date of the wound, and probably for a much longer period, without any reason or chemical grounds to suggest that these bacteria are present in the tissues. Whatever the nature of the wound,

whether it be slight or severe, without a careful bacteriological examination it is impossible to be sure there are no tetanic spores lurking in its depths. The extreme difficulty of killing these pathogenic anaerobes makes it incumbent upon those called upon to treat wounds incurred in the war, and especially in Northern France and Belgium, to take very special precautions to prevent their spread as well as to cure those infected. In the first instance, great care should be taken to sterilize effectively surgical instruments which have been used in operating upon wounds. If this be not done tetanus is certain to be communicated. Prophylactic injections of antitoxin, as previously noted, have been proved to be of the greatest service and the writers of the paper state that such injections, when promptly given, have been the means of saving the majority of patients seen by them from this most serious disease arising from wound infection.—*Medical Record*.

---

#### Use of Pigskin in Extensive Grafts

C. S. Venable, in the *Southwest Journal of Medicine and Surgery*, highly recommends the grafting of pigskin in cases where autografts are impracticable owing to the size of the area already denuded or inadvisability, for one reason or another, of subjecting the patient to the ordeal involved. His procedure is as follows: A young pig, two to six months old, is etherized, and the site from which the grafts are to be taken, preferably the rump, shaved and cleansed with soap, water, and a rag. The area is sponged with gasolene and finally with fifty per cent. alcohol or a one in 20,000 solution of biniodide of mercury (neither of these coagulating protein). In removing the graft, the skin is put on the stretch with hooks or clamps in the direction in which it is to be sliced, and with a thin bladed razor, folded on its handle, strips of epidermis are cut with a sawing movement after the manner of Thiersch. These strips are transferred to the area to be grafted by holding two points fixed with needles to the denuded surface, the blade being meantime gently withdrawn and any remaining irregularities then teased out with the needles. When enough grafts have been applied the rubber impregnated open mesh splint of Davis or a freshly prepared paraffin mesh is placed over them and held by adhesive plaster beyond the edges and by multiple interrupted sutures throughout the area. This is covered with a simple dry gauze dressing,

# Gastric Disorders

Physicians appreciate the prevalence of gastric disorders, in acute and chronic form, and that diet plays a very important part both in causation as well as in the cure of diseases of the stomach.

The necessity of regulating the diet and prohibiting foods which will aggravate the existing conditions is therefore obvious.

Tea and coffee, on account of their caffeine and tannin content, have a most detrimental effect on gastric digestion, consequently they should be prohibited in all gastric disorders and also in cases where the digestion is easily impaired.

The fact also, that most stomach cases suffer from malnutrition makes the use of

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instead of tea or coffee doubly effective because it is a safe and tasty drink, plus some nourishment.

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which is to be changed as often as it is soiled by the discharged fluids. The dressing should not include more than four to six thicknesses of gauze. About the third to the sixth day the sloughing epidermis is to be gently clipped away and the area exposed to the sun for about half an hour two or three times daily. The meshed splint is removed in ten or twelve days, and thereafter the site freely exposed for as much of the time as practical. While at about the fifth to the eighth day disappointment as to the success of the graft seems certain, the superficial squamous epithelium sloughing off, in a few more days the surface will begin to show a creamy white surface and then a healthy pink, the grafts having by this time manifestly taken.

The ultimate appearance of the grafts is good. The pigment soon disappears and no bristles are grown, the grafts having been cut in a plane superficial to the hair follicles. Should bristles by chance appear, their follicles will atrophy in a short time. The author has practised this method as one of election for nine years and has been enabled to attain from eighty-five to 100 per cent. of "takes" against thirty to seventy-five per cent. from the use of heterografts or grafts from others of the lower animals.

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### Hypertrichosis in the Insane

C. T. Ewart (*The Lancet*) states that one cannot pass through the wards of an asylum without being impressed by the number of female patients showing an excessive overgrowth of hair on the face—a number much larger than can be seen in any haphazard collection of women selected from the every-day world. The overgrowth is not a mere pencilling of down on the upper lip and chin, but consists of hirsute appendages capable of arousing in some men a feeling of envy. It would also be observed that these cases are represented by a lusty and strong type of physique, thus conveying the impression that the overgrowth is correlated with animal vigor. The author suggests that there is evidence which goes to show that the secretions of the suprarenal glands may be important factors. Some forms of cortical overgrowth of the suprarenals cause an early adolescence and sexual precocity. The young male acquires hair on the face and pubes years before the proper time, and his body at nine years becomes that of a diminutive but strongly built man. The female, curiously enough, under like conditions, loses the characteristics of her sex, hair growing on the face, and her body assuming a masculine contour.

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### OCTOBER EXAMINATIONS, 1915

The examinations of the Medical Council of Canada will be held in Montreal and Halifax coincidentally on October 12th, 1915.

Forms of certificate may be obtained from the Registrar at any time.

Registration for the October examination will close promptly at the Registrar's office in Ottawa on September 14th, 1915.

R. W. POWELL, M.D., Registrar, 180 Cooper St., Ottawa, Ont.

## Miscellaneous

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### On the Correction of Permanent Flexion of the Fingers Consequent on Whitlow

M. H. Morestin says the deformed position of such digits is due in part to cicatricial contraction of skin and in part to destruction or actual loss of tendons, with possibly some degree of ankylosis of the inter-phalangeal joints.

The author recognizes that in so grave a disability there is no prospect, by transplantation or other means, of securing a perfect restoration of the delicate mechanism of a tendon sheath, but he points out that by simple plastic methods much can be done to render these fingers once more useful. They possess usually some power of flexion *en masse* due to the *interossei* muscles, and if by division of the restricting scars and bands free play is given to these muscles a surprising amount of recovery may be gained by the damaged finger.

Morestin divides the contracted band freely from end to end in its long axis; he then dissects up a flap on each side of the incision, dividing *en route* everything which opposes full extension of the digit. By means of short oblique incisions in the flaps he makes a series of smaller flaps which, when the finger is brought into extension, can be disposed so as to cover in the greater part of the raw surface. The finger is fixed in extension until the wound is healed. Many cases, with photographs, are given to show the marked gain in usefulness secured by the operation.

---

### A Valuable Mechanical Laxative

In view of the many varieties of liquid petrolatum with which the market abounds, and the questionable quality that distinguishes much of it, physicians will welcome the announcement that Parke, Davis & Co. are supplying a product, under the designation of Liquid Petrolatum Heavy, that bears a substantial guarantee of purity and efficiency.

Liquid Petrolatum Heavy, P. D. & Co., is a product of high specific gravity and great lubricating power. It is tasteless, colorless and odorless, and is guaranteed to be free from sulphur compounds, acids, alkalies and all harmful by-products.

Liquid Petrolatum Heavy is not a purgative. Neither is it a laxative in the general sense of stimulating the bowel by local



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That, in brief, is the therapeutic office of



which it accomplishes without irritation or abrasion (vesication)—but, on the other hand, promotes a healthy cell-growth.

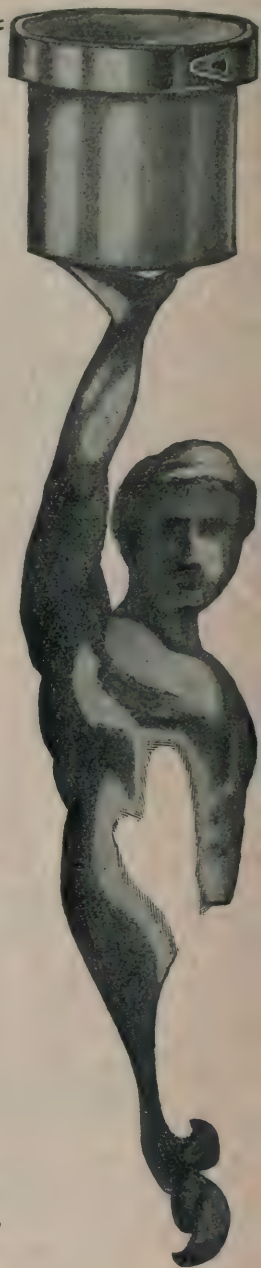
Antiphlogistine is an all-year-round preparation; usually applied hot, but fully efficacious (as it comes from container) in all cuta-

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irritation. Its function is that of an intestinal lubricant. It passes in toto through the alimentary tract, not a particle of it being digested or absorbed. It mingles with the food in the stomach and upper intestinal tract, with the result that the fœces becoming thoroughly lubricated and pass through the lower bowel more rapidly than they otherwise would and are expelled from the colon more promptly and with greater ease. Not the least valuable feature of this liquid petrolatum is its protective effect on the stomach and intestine, it being well known that abrasions or irritations of the mucous surfaces permit bacterial infection and general toxæmia.

Liquid Petrolatum Heavy may be taken with a pinch of salt or a dash of lemon juice, if the patient so desires, or it may be floated on a glass of water, wine, milk or other beverage. The dose recommended for adults is one or two tablespoonfuls morning and night, before or after meals, for the first two or three days. Later the amount may be diminished. To insure against possible mistakes, physicians will do well to specify "P. D. & Co." on their prescriptions.

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#### **Respiratory Failure Following Intralumbar Injection of Neo-Salvarsan**

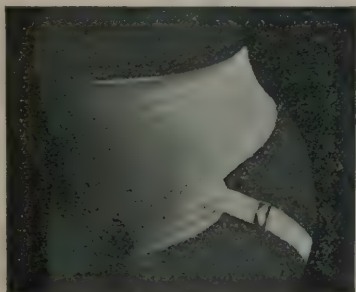
The danger of giving an intralumbar injection of neo-salvarsan in tabes, in which the respiratory centre is occasionally involved, is illustrated by the following case, recorded by J. Lewinsohn (*Deut. med. Woch.*, February 25th, 1915). A man of forty, who had contracted syphilis twenty-two years earlier, developed signs of tabes at the age of thirty-six. For this intermittent treatment with salvarsan, neo-salvarsan, and salvarsan serum was prescribed. On March 17th, 1914, an intravenous injection of 0.4 gram of salvarsan was given, and was followed by an intralumbar injection of 30 c.cm. of the patient's own serum on March 18th. On March 30th an intralumbar injection of 6 c.cm. of neo-salvarsan, in the proportion of 0.15 gram to 300 c.cm. of saline solution, was given. As a violent gastric crisis, with vomiting and abdominal pain, supervened, 0.02 gram of morphine was given on March 31st. About five minutes later the patient became unconscious and ceased to breathe. The pulse diminished till it could no longer be detected. During the following four hours the patient was kept alive by artificial respiration, the temporary cessation of which led to the return of cyanosis and the suspension of respiration.

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Next day, however, the patient was again well. Though the paralysis of the respiratory centre occurred only a few minutes after the administration of morphine, the author considers this drug less responsible than the neo-salvarsan, for much larger doses of morphine had been tolerated by the patient when given for severe gastric crises on previous occasions. The author admits, however, that the disease of the central nervous system, as well as the morphine, also contributed to the temporary cessation of respiration. He refers to other published cases, which show that paralysis of the respiratory centre may occur spontaneously in tabes, in which the involvement of the respiratory centre may be latent for some time. He also refers to a case recorded by Foerster, in which the relief of pain by morphine during gastric crises more than once caused temporary cessation of respiration.—*B. M. J.*

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### **Report of the Radioactive Properties of Springs of the Glen Springs, Watkins, N.Y.**

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BY JOHN SANFORD SHEARER, B.S., PH.D., Professor of Physics,  
Cornell University, Ithaca, New York.

Spring No. 1, Salubria, .64 Mache Units; Spring No. 2, Nauheim, 64.8 Mache Units; Spring No. 3, Glen Kissingen, trace; Spring No. 4, Deer Lick, 2.89 Mache Units.

The radioactive properties of spring waters are generally due to a gas derived from the decomposition of radium in the earth or strata through which the water has passed. Sometimes there is an actual solution of radioactive salts in the water.

The active gas is known as the radium "emanation" and it may be driven out of the water by boiling. When the water is removed from the radioactive material and does not carry the salts in solution, the dissolved emanation loses its "activity" at a known rate. The same is true of the "emanation" when removed from the water.

If radium is present in the water there is a continuous decay as above but also a continuous development, thus maintaining a fixed condition.

The rate of decay is such that when there is no supply the activity reduces to 50 per cent. of the initial value in 3.85 days, to 25 per cent. in 7.7, so that in 26 days only 1 per cent. remains. In 30 days, .5 per cent. The rate of development is equal to the decay so that a solution of radium from which all emanation has been expelled will regain its emanation at the same rate. Thus requiring about 30 days to completely regain its original content.

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## TESTS.

The water received was run without filtering or any preliminary treatment except the addition of C. P. caustic potash in order to absorb  $\text{CO}_2$  making less gas to pass into the electro-scope. Water was received as follows:

Spring No. 1, Drawn 10.45 A.M., Feb. 23, 1915.

Spring No. 2, Drawn 11.25 A.M., Feb. 23, 1915.

Spring No. 3, Drawn 12.30 P.M., Feb. 23, 1915.

Spring No. 4, Drawn 2.15 P.M., Feb. 23, 1915.

No. 1 broken in transit.

New sample No. 1, Drawn 3.55 P.M., April 1, 1915.

New sample No. 2, Drawn 4.00 P.M., April 1, 1915.

Results are expressed in Mache Units, where 1 Mache Unit equals 2,700 Millicuries per liter of water.

Spring No. 1—Initial Content, .64 M. U.

Spring No. 4—Initial Content, 2.89 M. U.

Spring No. 3—Slight trace, not computed.

In testing Spring No. 2, it was noted that the activity was very much greater than shown by any of the others, also that the results varied with the sample. This water has a considerable amount of black sediment and when a sample was drawn more or less of this might be included. There was also indication of recovery when the boiled solution was left standing for some days. This is exactly what one would expect if a trace of radium salt were in solution. Some of the sediment is under test to ascertain whether this is the case and is so, what its radium content may be. The average of all runs on Spring No. 2 gives 64.8 M. U. per liter.

Summarizing:

No. 1 gives .64 M. U. per liter.

No. 2 gives 64.8 M. U. per liter.

No. 3 gives a slight trace as do most ground waters.

No. 4 gives 2.89 M. U. per liter.

As indicating the comparative activity of spring waters, reference may be made to Radium, April, 1915.

Hot Springs, Ark., vary from .07 to 23.6 M. U.

Saratoga Springs, vary from 1.08 to 2.37 M. U.

Colorado Springs, vary from .21 to 10.4 M. U.



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One or two Capsules three times a day, followed by a copious drink of water.

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—*British Medical Journal*

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It would appear that Springs No. 1 and No. 4 are quite similar to Saratoga Springs, while No. 2 seems to be nearly three times as active as the highest American spring previously reported. After the determination of the activity of the sediment it may appear that the *initial* value of No. 2 is even higher than shown.

Respectfully submitted,  
J. S. SHEARER.

### Urethral Caruncle

E. L. Young, Jr. (*Boston Medical and Surgical Journal*), notes that the pathological examination of this type of growth shows a surprisingly large percentage of cases in which the question of malignancy is raised. As there is clinical evidence to show that certain cases turn out to be carcinomatous later, it would seem wise to examine all specimens when possible and to watch carefully the suspicious ones. About 50 per cent. of caruncles have no accompanying symptoms and where urinary symptoms are present a large proportion are probably not due to the growth. Thirty-three per cent. of all cases of the author's series have recurred regardless of the type of operation and where a stricture was present it has always recurred.—*Medical Record*.

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# The Canadian Practitioner and Review

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Vol. XL.

TORONTO, OCTOBER, 1915.

No. 10

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## Original Communications

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### RADIUM AND TRICHLORACETIC ACID IN DERMATOLOGY\*

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BY DR. W. H. B. AIKINS, TORONTO.

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In this paper I desire to discuss two agents which have proved invaluable to me in the treatment of certain diseases of the skin. It may seem strange that these two materials have been linked together in this title, instead of dealing with each agent separately, but when it is considered that in many cases radium and trichloroacetic acid are complementary one to the other, it will be more readily understood why such a title was chosen.

The use of radium and its great value in the treatment of certain affections has of course been recognized for years. Ever since Wickham founded the first Radium Institute in Paris and put radium therapy on a sound scientific basis, evidence continues to accumulate as to the great value of this therapeutic agent when properly used.

My attention was first drawn to the use of trichloroacetic acid as a valuable adjunct in treating skin lesions by my friend Dr. Douglass Montgomery, of San Francisco, who found it valuable in the treatment of seborrhœic and senile keratosis. Trichloroacetic acid occurs as white deliquescent crystals, having a melting point of 55° C. and readily soluble in water. It is a substance which has been in use for some time among dentists and laryngologists, but very little reference to it is found in medical literature. In many cases it has been supplementary to

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\*Read at the meeting of the Ontario Medical Association, Peterborough, Ont., May, 1915.



treatment by radium. Like the latter the scar left after its use is negligible, an excellent cosmetic result being obtained.

The most important effect of the acid on the skin is due to its keratolytic action. It dissolves horny epithelium. Montgomery showed this action by dropping some of the pure acid on shavings of horny epithelium. The shavings swelled up into a clear jelly, and on examination with a microscope an immense number of fat droplets was found along the intercellular junctions. It gave an appearance as though the intercellular substance was principally attacked and the fat was being squeezed out of the tissue. Such being its action it can readily be seen why it has such a special use in the treatment of keratosis. The thickened cornified epithelium is softened and falls off as an eschar, leaving smooth almost normal appearing skin beneath.

*Technique.*—The method of application is comparatively simple. When the tissue is much thickened a quicker result may be obtained if the dermal curette is first used to remove a large portion of the excrescence.

The acid may be applied either as the pure crystals or in concentrated solution. A dressing probe or match point or glass rod makes an excellent applicator. The lesion to be treated must first be wiped thoroughly dry, alcohol or ether being used. The normal skin around may be protected by vaseline. The acid is then applied and rubbed in with some pressure. The tissues quickly become a dead white, and the patient complains of a stinging pain. When this occurs mop off the treated area with water until all burning sensation has ceased.

In many respects the action of trichloroacetic acid is similar to that of carbon dioxide snow, but it is much less painful, as practically all pain is removed by the mopping with water. It can also be used in the form of pastes.

The dermatological conditions in which trichloroacetic acid may be of service are many and varied. As has been mentioned, it is a most useful agent in the treatment of keratosis, and the proper treatment of keratosis is important on account of the frequency with which epithelioma develops from keratotic lesions. Occurring most often in the elderly, particularly those who during their life time have been exposed to the wind and sun a great deal, still it is not uncommon to see keratosis develop in those of middle life. Depending on the type of skin upon which they develop keratoses are hard, thick masses, which can be scraped off with difficulty, being as it were torn from the underlying tissues, or they are soft, greasy, friable and readily removed by

light scraping, leaving the underlying skin soft, pultaceous and frequently undergoing epitheliomatous degeneration. Recognizing as we do the importance of removal of what we now regard as pre-cancerous patches, the early treatment of such spots of keratosis cannot be over-emphasized. Radium is a most useful agent in their treatment, preferably employed after the removal of the crusts by a dermal curette. It is used in sufficient dosage to produce a mild reaction.

Where many spots of keratosis are present, and the application of radium might be tedious and take up considerable time, the saturated solution of trichloroacetic acid may be substituted. In a few minutes numerous spots may be treated, and without very much discomfort to the patient. Recurrences are rare.

In the treatment of warts, moles and xanthoma it is very efficacious. If the wart or mole is much elevated above the surface of the skin, it is better not to attempt to destroy the whole lesion at once, but by successive applications gradually cause its disappearance.

*Lupus Erythematosus.*—The intractability of this condition very often to treatment is well recognized, as is shown by the long list of remedies which various authorities mention for its cure. No routine plan can be adopted, for what is successful in one case may not produce so beneficial a result in another. Several cases have done excellently by means of radium. Sometimes in the same patient certain of the lesions respond to radium, while others do not. One case of mine showed this in a marked degree. The patient had patches of lupus erythematosus on the cheek below the eyes, at the back of the ear, on the forehead and on the nose. She had had a prolonged series of treatments, when on the Pacific Coast and in Chicago with carbon dioxide snow with no benefit. After this she came to me. Under the action of radium the patches on the forehead, and behind the ear, and most of it on the nose disappeared, but the others would clear up for a time and then recur. Trichloroacetic acid came to my notice about this time, and I used it on these stubborn patches with very gratifying results.

*Lupus Vulgaris.*—Practically all authorities agree that the best results in the treatment of lupus are obtained by the use of the Finsen Light, but the tediousness of the treatment, and the difficulty the patient experiences in obtaining it render it not always the method of choice. Here radium exerts a remarkable influence, and if used in destructive doses causes retrogression of the diseased tissue, leaving as radium always does leave a

good cosmetic result. For small isolated nodules use has been made of applications of trichloroacetic acid, which is an agent of considerable value in such cases.

*Nævi*.—For small *nævi* destruction by caustic action is often the most convenient method of treatment. I refer to lesions so small as to perhaps deserve to be called telangiectases rather than *nævi*. There are one or two fairly prominent, dilated capillaries. It is recognized now, I think, almost universally, that no method of treating these vascular new growths can be compared for cosmetic result with the general obliteration of the vessels brought about by the proper use of radium. Some times for these very small points quick action is desired, and patients will not devote the time required for treatment. Electrolysis is used, but as a rule the resulting scar is far more disfiguring than the original mark. Solid carbon dioxide has its advocates, and certainly good results are obtained from its use. It is a painful procedure, however, and if too much pressure is applied great destruction of the tissues may be produced and considerable scarring result. Trichloroacetic acid in these cases acts well; it produces but slight pain during its application and the resulting scar is not disfiguring. One field where a wide sphere of usefulness exists is in the treatment of the telangiectases; which so often result after the use of X-ray. When destructive doses of X-ray have been used telangiectases, as it is very well known, are apt to develop.

The appearance of the part can be materially benefited by treatment of the dilated capillaries, which may be readily destroyed by applications of trichloroacetic acid, leaving a good cosmetic result. It is applicable also to condyloma and scar cicatrix.

*Radium*.—Speaking now more particularly of the use of radium in dermatology, one naturally turns at first to its value in the treatment of rodent ulcer, for of all forms of malignant disease this is the one in which radium is almost a specific. It was in the treatment of this disease that the therapeutic value of radium was first definitely established, and the way paved for the further research on its curative value in new growths.

A great number of cases of rodent ulcer have come under my observation in the last few years, and it is one of the most satisfactory things in the practice of medicine to note that the great majority respond readily to this treatment, and have remained cured over a period of years. It is true of course that certain cases do not respond as well as others. This is particularly so when all sorts of treatment, such as X-ray,  $\text{CO}_2$ , ionization, etc.,



have been previously employed. It would appear that from being acted upon by so many different physical agents, the tissues have lost their vitality and their ability to form granulations, so that while the disease may be arrested complete healing does not occur. Then again where cartilage or bone is involved great care must be exercised in the dosage given, as too heavy exposure may produce a very painful and prolonged inflammation of the parts. Ordinarily where such parts are not affected I have found the most lasting results to follow sufficient dosage to produce quite a severe reaction. This reaction comes on about a week or ten days after exposure, and shows itself by inflammation of the part with later the development of a radium crust. In about six weeks this crust detaches itself and a smooth, supple, scarcely noticeable scar is left.

The following cases illustrate the excellent results to be obtained from the use of radium, after other methods had proved ineffective.



Plate I. Rodent ulcer of eight years' standing.

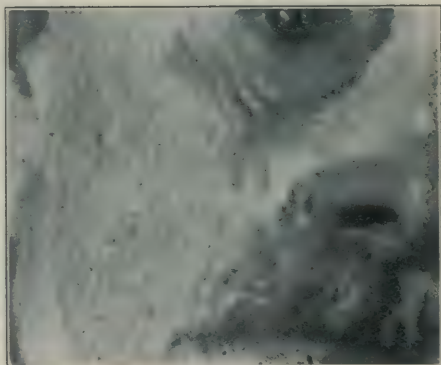


Plate II. Same patient as in Plate I. two months after radium treatment was begun.

H. S., aet 54, referred by Dr. Charles McKenna, Toronto. A rodent ulcer developed on the right cheek 8 years ago. Under the X-ray the ulcer healed, but broke down again in three or four months time. For 10 months he underwent treatment with the electric needle without result. When he first came under observation the lesion presented the appearance seen in Plate I; the ulcer was three-quarters of an inch in diameter, with a thickened margin and granulations covering its base. Following a single series of radium treatment healing took place, so that, in two months the

appearance was that shown in Plate II. At the present time the condition is most satisfactory, there being a smooth supple cicatrix present.

The second case was in a man of 39, referred by Dr. Baldwin, Benito, Manitoba. Five years ago an ulcer developed above the right eyebrow. With the exception of ointments no treatment was received for three years. During the last two years he had received treatment with carbonic acid snow, and had one application of the X-ray. The appearance is seen in Plate III; the ulcer being one and one-half inches in diameter, and extending down to the bone. The edges were much thickened. A heavy radium exposure was given, following which healthy granulations



Plate III. Rodent ulcer of forehead, present for 5 years.



Plate IV. Healing produced by the use of radium on case illustrated in Plate III.

formed and gradual cicatrization took place. Plate IV shows the appearance at the present time. Complete healing has occurred.

*Epithelioma of the Skin.*—Radium used on squamous-celled epithelioma of the skin gives excellent results. Depending on the depth of involvement slight variations must be made as regards the length of application; screening the apparatus, etc. Where there is a good deal of thickening of the edge of the ulcer, or it tends to be fungating, preliminary curettage hastens the cure, the radium plaques being applied a few hours later. Prolonged exposures using heavily screened apparatus which emits only the harder beta and gamma rays, should be given, and healing takes

place with a minimum of inflammatory reaction. Naturally the tendency of squamous-celled carcinoma to form metastases in the neighboring lymph glands must not be overlooked.

One special use of radium in new growths of this nature is as a prophylactic following surgical removal. This is a wise procedure, and one which is quite firmly established as a routine measure in centres where special attention is devoted to the study of malignant disease. Certainly many cases in which one would ordinarily expect to have recurrences have been free from such by the combined use of operative procedure and post-operative radiation.

*Epithelioma of the Lip.*—Although not in the strict sense of the term a dermatological lesion, yet certain cases have given such satisfactory results with radium that one may perhaps be

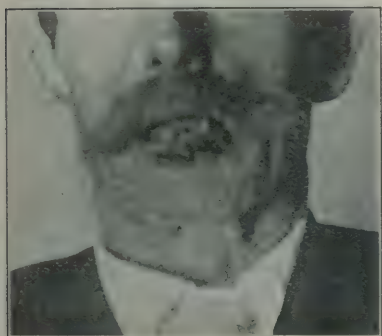


Plate V. Epithelioma of the lip.  
Before treatment.

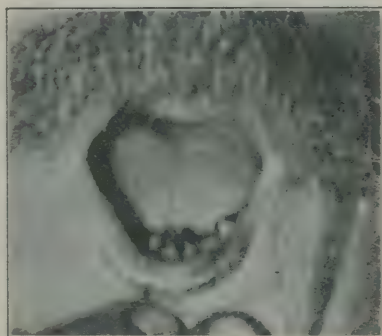


Plate VI. After treatment by radium.  
The lip is healed and smooth.

pardoned for referring to it. When the ulceration is superficial and the lesion is freely moveable on the underlying tissues, in my experience radium furnishes a clinical cure, and from its ease of application and little discomfort to the patient is the method of election. I have seen cases previously operated upon, with recurrence, clear up completely under its use.

The two cases illustrated show what may be expected from the proper use of radium. The appearance shown in Plate V was present in a man 55 years of age, referred by Dr. H. L. Anderson, Niagara-on-the-Lake. It had begun as a small ulcer three years before. When he came under observation almost all of the red surface of the lower lip was involved, presenting a central ulcerated portion surrounded by a hard margin. The thickened edges were curetted and a heavy exposure to radium



given, resulting in a fairly severe reaction. Two months later the lip was quite healed and presented the appearance shown in Plate VI.

In a man of 77, referred by Dr. W. J. Wilson, Toronto, there was present an epithelioma on the left side of the lower lip, which had been cauterized by his physician without result. The patient was so feeble that operation was not to be entertained. The appearance is shown in Plate VII.

The ulcer was as large as a ten cent piece with indurated base and edges. Twelve hours exposure with a plaque containing half a centigram of radium was given. In ten days a crust had formed which detached itself in about six weeks' time, leaving a perfectly smooth healed surface, as seen in Plate VIII.

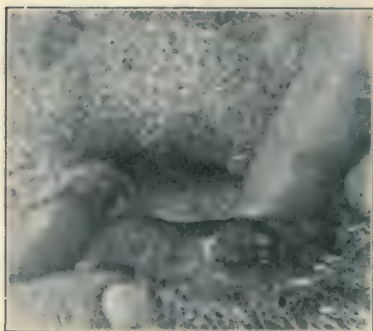


Plate VII. Epithelioma of the lip.  
Before treatment.



Plate VIII. Same case as Plate VII.  
After treatment by radium.

*Warts and Papillomata.*—These benign growths of the skin yield readily to comparatively short exposures to radium. The importance of having such treated cannot be over-emphasized when one considers the frequency with which malignant disease of the skin develops on the site of a pre-existing papillomatous growth.

*Acne Vulgaris and Acne Keloid.*—Chronic cases of acne vulgaris particularly when associated with scarring respond well to radium rays.

*Keloid.*—This disfiguring condition met with not uncommonly after severe burns yields to no method of treatment as it does to radium. It would almost appear that keloid tissue was specifically influenced by the radium rays, and the prognosis is excellent when the lesion is not of too long standing. When the keloid is painful radium exerts a distinct anæsthetic effect. If

screened applicators are used for a prolonged period of time a gradual absorption of the keloid tissue may be brought about without any surface irritation. This method of course takes longer, and if time is a factor of importance, unscreened plaques may be used, and a destructive reaction produced.

A patient referred by Dr. H. A. Bruce had a severe burn involving the dorsum of both hands, and extending up the forearm. In healing an enormous amount of keloid tissue was formed, so that she was unable to move the wrist or bend the fingers of the left hand. (Plate IX.) She had a prolonged



Plate IX. Keloid before treatment, showing deformity and fixation of joints.

series of X-ray treatments without result. Her surgeon asked me to use radium which I did, with already a marked improvement. The keloid thickening is much diminished, in some places almost gone, the wrist is quite moveable and the fingers also. (Plate X.) Treatment has had to be suspended for some weeks owing to advanced pregnancy, but I hope to renew it shortly. The prognosis is excellent for the keloidal tissue to become all absorbed.

*Naevi and Angiomata.*—For the treatment of these disfiguring marks radium gives us a therapeutic agent which readily supersedes all other means which previously had been employed. As regards the flat port wine stain the prognosis depends on the

case with which pressure will cause a blanching of the mark. If gentle pressure suffices to expel the color a very optimistic view may be entertained as to obtaining a good cosmetic result. Radiation is given in sufficient dosage to cause just a slight superficial reaction. This is repeated from time to time until fading has been produced. The keynote to success in the obtaining of a good permanent result in these cases is to be content to proceed cautiously. One must be prepared to keep the patient under observation for a considerable period of time, giving treatment as indicated, and on no account to hurry.



Plate X. Shows improvement after a series of radium applications.  
Note the flexion of the fingers.

Moreover, one finds that with these cases the personal factor must be taken into more than ordinary consideration, and great care exercised that too much reaction is not produced. If one does unavoidably give too long an exposure to a patient with an exceptionally sensitive skin, telangiectases are apt to subsequently develop.

*Angiomata.*—These do exceedingly well under radium rays and are best treated by screened plaques applied for longer periods. In this way a gradual shrinking of the mass is brought about without surface reaction. This is important because where the growth is so vascular there is some danger of hemorrhage if ulcerative reaction should be produced. In these cases it is



often possible to employ "cross-fire," a method devised by Wickham for producing as it were a concentrated fire on a tumor mass. Plaques are placed on opposite sides of the growth so that the tissues receive double radiation. Unless such angiomatic tumors are supplied by a large vessel, as evidenced by pulsation, the manner in which they appear to melt away, is most gratifying.

*Lupus Erythematosus.*—I have already spoken of the value of radium in Lupus Erythematosus. The difficulty of curing this disease is well recognized. Radium has however in some cases where not much previous treatment has been used been productive of good results, and the lesions have permanently disappeared. In using it treatment should be applied to the tissues surrounding the lesion as well as to the actual lesion itself.

*Lupus Vulgaris.*—Used in a destructive way, radium acts with good effect in this condition. Heavy doses must be given, and as in lupus erythematosus the surrounding tissues treated. Radium has a peculiar scope in the treatment of lupus in situations such as within the nasal cavity.

*Pruritus.*—The application of radium has a marked analgesic action, and this is well seen in the treatment of certain persistent cases of pruritus. Short exposures of strong plaques will relieve the intolerable itching after all other methods, including cauterization, X-ray, etc., have failed.

*Chronic Eczema.*—A similar satisfactory result may be obtained in the treatment of patches of chronic eczema. A dosage sufficient to produce a mild stimulation will result in the clearing up of persistent thickened patches which have resisted all other treatments.

*Acne Rosacea and Rhinophyma* can now be treated successfully with radium, as well as certain parasitic diseases and tuberculosis of the skin.

In this somewhat brief manner the great value of radium in the treatment of dermatological lesions has been discussed. To go more into detail would be beyond the range of this paper. The endeavor has been made to show the large variety of conditions in which such an accessory physical agent is not only useful but absolutely necessary if any satisfactory result is to be obtained.

## NATURE AND NURTURE IN MENTAL DEVELOPMENT \*

BY DR. HELEN MACMURCHY.

Doctor Mott's lectures on the above important and fascinating subject, delivered when he was Lecturer in 1913 to the Chadwick Public Trust, have been revised and added to by him, and are now issued in a book which is naturally of considerable value.

Doctor Mott is one who can and does teach with authority, and his wide experience as a physiologist and as pathologist to the London County Asylums has placed him in a position to acquire that intimate knowledge of many cases and personal and family histories on which alone conclusions in such matters can safely be based. His progressive and distinguished work in his chosen sphere is known to the whole scientific and medical world, and his public spirit and interest in everything for the good of the nation and of humanity has given him a still wider and more enduring fame.

While it cannot be said that any startling discovery or novel theory is contained in this book, it is no less a profitable one to read and study, and it is free from those technical terms and obscure expressions which might interfere with the real usefulness of the book to the general reader.

Doctor Mott pays a supremely well-deserved tribute to Sir Edwin Chadwick. It may indeed be doubted whether modern sanitarians have done more to develop the principles announced by Chadwick in 1842 in his book on "The Sanitary Condition of the Laboring Population in Great Britain." He was indeed a prince among men and a king among sanitary reformers.

Although the presentation of nature and nurture in mental development in this book is necessarily brief, yet there are few topics of importance in regard to it which are not dealt with here, albeit in a concise, sometimes in an implicit, manner. Doctor Mott makes a comparison between the personal endowment of the individual, or hereditary raw material of mentality, and the "social heritage slowly built up by man, of which the brain is the receptor and storehouse," and he shows that for the

\* F. W. Mott, M.D., F.R.S., F.R.C.P., LL.D. Edin. London: John Murray. Pp. 151. 3s. 6d.

highest success and usefulness of life there are three great endowments of primary importance—a good mind, a good body, and a good opportunity of access to the treasures of thought and advancement which are the common heritage of the race.

Alcohol and syphilis appear in these pages in their true character as “Race-poisons”; hormones are adequately referred to and their functions considered; cerebral development in animals and man in normal and subnormal members of the human race is discussed and illustrated at some length, and the question of neuropathic inheritance is dealt with and elucidated by somewhat detailed references to numerous family histories and charts.

The author, like all modern prison reformers, dissociates himself from any belief in Lombroso’s once common theory of the “born criminal,” and adduces reasons. He takes up the causes of mental deficiency, genius in relation to heredity, the influence of nutrition and the influence of education in regard to mental development as well as the rôle played by stimulus in the same.

The practical wisdom and judgment which are in evidence all through this book are specially evident in the discussion on infant feeding and again in the chapter on sleep and mental development.

The reader cannot help being impressed with the wealth of interesting reference contained in this volume. The remarkable careers of Laura Bridgman, Helen Keller and Marie Huertin are utilized to illustrate mental development by formal education, and the Darwin, Galton and Wedgwood families, with their wonderful endowments and careers, are again laid before the reader as an illustration of the value of inheritance.

In discussing the “Effects of Education upon Race, Class and Sex,” the distinguished author might wish perhaps in another edition to make it clearer that any individual woman must be considered as a person, or rather, perhaps, to make it clearer, that personality is after all the determining factor in the career and history of individual women, just as it is in the career and history of individual men.

A valuable paper on the medical inspection of school children by Miss Agnes Mott, School Nurse to the City of Chester, appears as an appendix to the book.



## THE MODERN TREATMENT OF SUPERFICIAL MALIGNANT GROWTHS

BY CHAS. R. DICKSON, M.D.

Consultant in Electro-Therapeutics to the Toronto General Hospital;  
Honorary Fellow, American Electro-Therapeutic Association.

The subject of cancer is attracting very much attention at the present time. It is very gratifying to note that the laity is being invited to join the medical profession in the campaign against this insidious disease. As with tuberculosis, but even to a greater degree in the case of cancer, the good results to be obtained depend much on its early recognition. We know how tuberculosis is communicated, but we know little of the life history of the malignant neoplasms, and if we expect to accomplish anything tangible in the amelioration of this disease an early diagnosis is imperative. This early recognition can only be obtained by the intelligent education of the laity and the medical profession alike, and their hearty co-operation. There is no doubt as to the laity requiring instruction on this matter, but it is most lamentable to be informed in the most matter-of-fact way by members of the medical profession that they are just watching a case of suspected malignancy of several months' standing. It cannot be too frequently reiterated that warts, moles and senile plaques should always be looked on with suspicion.

Early operation is imperative. Trifling with palliative measures should be sedulously avoided. Of the various means of treatment at our disposal we have removal by the knife, desiccatory fulguration, X-ray, electrolysis, radium and carbon dioxide snow. The knife still holds its place in the treatment of cancer. There are cases, however, where from the situation of the growth or from its extent removal by the knife would entail too great a loss of tissue and interfere with cosmetic results, that the advantage of the treatment to be outlined will be especially evident. This method entails a minimum of tissue destruction, affording all the advantages of the knife, with the additional recommendation of less liability of recurrence after its employment.

Many cases respond satisfactorily and immediately to properly applied X-ray treatment. This is well illustrated by a case referred by Dr. R. A. Reeve some years ago. The patient

was a woman with an epithelioma involving the upper eyelid and extending to the inner canthus. Removal by the knife would have meant a considerable amount of tissue destruction, subsequent deformity, and a very disfiguring scar. Under less than six weeks' treatment by the X-ray, attended by no discomfort to the patient, not only did the epithelioma disappear completely but there was no scar or deformity to mark the site of the lesion. Another striking case in point was referred by Dr. A. McPhedran in 1905. This patient had a large epithelioma two and one-half inches in diameter on the neck extending to the margin of the lower jaw. After three months' X-ray treatment, usually thrice weekly, the epithelioma disappeared, leaving no trace of its former location, and when the patient died seven years subsequently there was no trace of recurrence. The foregoing illustrates what can be accomplished by the X-ray alone. But in common with other X-ray operators our experience has been that the X-ray alone is very often insufficient to cope with these cases. The discharge and pain may cease almost entirely, and the growth be checked, but something additional is necessary. It seems to take the extra stimulus afforded by desiccatory fulguration to effect a cure and lessen the number of X-ray treatments. The advantage of this combined treatment will be seen in a case referred by Mr. I. H. Cameron. Removal by the knife would have been impossible, as the growth extended across the bridge of the nose down to one-eighth inch from the inner canthus. It was about two inches wide and almost reached the periosteum. The surface was sloughing and discharging pus. After the first treatment some nodules near the canthus broke down and started to slough, looking as if the disease were going to make rapid progress. At the end of the second treatment the edges and base were fulgurated, no anæsthesia being required. Altogether the patient had six X-ray treatments, and before three of these treatments the growth was fulgurated. The desiccatory fulguration has been a favorite method of treatment both here and abroad for many years. This fulguration is done by means of an electric spark coming from a metallic point connected with a machine giving a currency of high frequency and high potential. This spark has a drying effect on the tissues, destroying the neoplasm, closing the capillaries and lymphatics and preventing the spread of the cancer cell. Where a small area has to be gone over no anæsthetic is necessary. This treatment has another great advantage in that dressings are rarely required.

the surface being left exposed to the air, a method much in vogue at the front. Under the stimulus of this form of treatment, which entails the least possible destruction of tissue, healing goes on rapidly. Compared with other forms of treatment the cosmetic results are excellent.

All surgeons who have kept in touch with recent literature agree as to the value of properly applied X-ray treatment previous to and subsequent to operation. A case referred by Mr. I. H. Cameron, which had been operated on for cancer of the breast, was rayed before and after operation. A few months after the patient noticed a small nodule in the line of incision. It was rayed three times and the nodule was removed by Doctor Shenstone. No traces of cancer were found.

Carbon dioxide snow has been used occasionally for the removal of small neoplasms. It has the disadvantage of causing very great œdema, especially when used near the eye. It lacks the drying effect of fulguration and does not occlude the small blood vessels and lymphatics permanently.

Ointments, pastes and plasters have been much in vogue in the past but have been found wanting. Many of them cause great pain, and the great difficulty of governing the extent of tissue to be destroyed renders their use uncertain and often dangerous. Radium also is employed extensively, but I have had no personal experience of its use.

Many patients dread the mere thought of a surgical operation, but from the cases cited it may be seen that surgical intervention is not always necessary, especially when the disease is recognized sufficiently early.

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## Selected Articles

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### THE TEACHING OF MEDICINE\*

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By ADAM H. WRIGHT, B.A., M.D., M.R.C.S., ENG., TORONTO.

Emeritus Professor of Obstetrics, University of Toronto.

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During my student days I spent three months in New York, taking what was known as the fall session, and also a part of the winter session. I became a student at Bellevue College, and my connections with that institution gave me the entree into all hospitals, dispensaries, and to a limited extent to the medical colleges. Among the men I remember best were Alonzo Clark, Loomis, Fordyce Barker, Gaillard Thomas, the Austin Flints, senior and junior, Sayre, VanBuren, Metcalf, Lusk, Valentine Mott, and some younger men they considered then as boys, such as Janeway, Keyes, etc. These were all great men and the best teachers of medicine, I think, I ever met. They were men of pronounced individuality, strong personality, and great magnetism. Their methods were through didactic lectures, clinical lectures, demonstrations of the treatment of outdoor patients to large classes, and work in the out-patient dispensaries.

I do not like the word, didactic, because it is so frequently misunderstood, or at least misapplied. According to Webster, it means instructive, but it happens that all lectures designated didactic are not instructive. Therefore we have instructive lectures and non-instructive lectures. The fashion once in existence to teach medicine entirely, or almost entirely, by didactic lectures was absurd, and had much to do with the present objections to didactic teaching. Having in mind some of the men of the past whom we knew, may we not presume that a set of lectures delivered by such teachers as the late W. T. Aikins, George Peters, and J. E. Graham would be really instructive?

Of these medical teachers in New York I found that most had taken post-graduate courses abroad, especially in France and Great Britain. However, the fame of Germany was then spreading rapidly, and it soon became the fashion to go to that country. I have been told that the man who did the most to

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\*Read at meeting of the Ontario Medical Association, Peterborough, Ont., May 27, 1915.

attract young American graduates was that wonderful teacher, Johannes Müller, professor of anatomy and physiology in Berlin from 1833 to 1858. After him came many of his pupils, and here one may be named, Carl Ludwig, who had in his laboratory such men as H. P. Bowditch, afterward professor at Harvard, and other young men from the United States, who became in time distinguished teachers. German methods became exceedingly popular in various universities of the Republic, and were considered by some better than those designated as English methods. Without doubt the Germans for a time led the world in scientific investigations in their well equipped laboratories. While this fact is recognized, the majority of scientific men in Great Britain now think that deplorable changes have taken place in German Kultur during the last thirty years, and the arrogant claims of superiority in Germany in art and science have become absurd. In considering the two methods, it may be said probably without any serious adverse criticism, that those teachers who can combine the good features of both the German and the English methods will do the best work for students.

A great many teachers of medicine think that we in Canada and the United States pay too much attention to the German machine-like work, and not enough to the art of medicine. Most of the presidents of the Canadian Medical Association for several years have warned the profession respecting the evils of such methods in teaching. Let us choose from these presidents two only.

Dr. Francis Shepherd stated, in 1902, that "in many of our modern hospitals with their laboratories students are not taught to observe so carefully the evident symptoms of disease, and are becoming mere mechanics. . . . The higher and more intellectual means of drawing conclusions by inductive reasoning are almost neglected."

Dr. H. A. McCallum said, in 1912: "The Carnegie Foundation authorities have, however, over-emphasized the laboratory side of medical instruction. The German method of medical education is to tie the medical student to a microscope, as opposed to the English method of cultivating knowledge through the unaided eye. In Germany the aim is to make scientists first and then doctors; whereas the primary purpose for which students learn science is to become physicians, not scientists. Literature of the several subjects which form the basis of medicine has become so extensive that no man can keep abreast of it. For years American medical teaching has been

dominated by the German plan of instruction. In certain quarters there is setting in a reaction. It is claimed that we have become guilty of a fetish worship of laboratories in medical instruction and medical practice."

Let us go back a few years and quote from one of England's greatest teachers, Sir George Humphrey, professor of anatomy, Cambridge University, who said, in 1896: "There is too great a mass of facts heaped on the memory and too little reflection on them. . . . The sciences of physiology and histology have become and those of pathology are becoming more separated from medicine, delegated to special teachers, doubtless to the advantage and width of scope of these sciences and greater knowledge of them, but I fear there is here incurred the tendency to take the student too far afield. . . . It is apt to lead too much in great altitudes; too little to straight going on terra firma; too much to pride and abstrusiveness; too little to reasoning, and too little to that sort of reasoning which constitutes the basis of common sense. The scientific and the practical in short become too much separated. What is needed is a greater regard for that connection between the two which should be maintained through the whole period of study."

Dector Starling, professor of physiology, University College, London, said in 1908: "The tendency for anatomical education to be imparted by professional anatomists has led to increased demands upon the student in the way of accuracy of knowledge. The work demanded of the student is practically double in amount and is still increasing. What is the result? We are trying now to get two pints into a pot that formerly held one. The result is the student is overburdened . . . so that he has no time for independent thought."

The *British Medical Journal*, in 1910, said: "Biology as taught by non-medical biologists must go. . . . Chemistry in the future must be taught by the physiological chemist, and physics by the physiological physicist; by medical men who have gone through the whole training and know the needs and aims of practical medicine. . . . In anatomy great reform is needed in the size of the textbooks, and the masses of useless detail required have reached the limit of pedagogic absurdity."

Dr. Herbert Hamilton, in his presidential address before the Academy of Medicine, in 1913, said: "The curriculum is now becoming so overburdened that revision is imperative." In the years 1913 and 1914 there was much discussion in England as to the work of the Royal Commission on University Educa-



tion in London, of which Lord Haldane was president. We were told by the *Medical Press and Circular* that "the object of this commission was to promote a professorial university largely on the lines of the German university." Sir Henry Morris said: "Why are the independent medical schools to be sacrificed in favor of grafting on to our British methods a system which has been as pernicious in its origin as it is impractical in character and results?"

The *British Medical Journal*, last November, referred to the vanity and spite of the German professors, "which will only help to stop the tendency to pan-Germanism in medicine." It also quotes, evidently with approval, from "a shrewd observer," Dr. H. P. Greely, who from his own observation wrote in the *Boston Medical and Surgical Journal*, last September:

There are certain tendencies in the evolution of medicine as a pure science, as it has developed in Germany, which rather contribute to the increase of charlatanism. These tendencies are worthy of analysis by us who are so rapidly Germanizing our methods, as a warning so that we may escape like evils. The medical school has two important duties—one to medical science, the other to the public; the one encouraging and promoting medical education and scientific medical progress, the other supplying to the public well trained practitioners. The latter is really the greater, for out of every graduating class ninety per cent. are practitioners and less than ten per cent. are scientists, and of these only one or two are so eminently fitted for scientific work as ever to accomplish much. The conditions in Germany are reversed, however. There there are ninety physicians dawdling with science to every ten doing practice. Of these ninety fully seventy-five per cent. are wasting their time so far as permanent results are concerned. . . . The teaching in Germany produces a few scientists, a large number of pseudo-scientists, and a few good practitioners. In Germany the scientific side is over-developed, while the human side is greatly neglected. German physicians do not know how to treat the individual, and recognize only the disease. The comfort of the patient or the recognition of his personality is not considered.

These men who have expressed opinions are, perhaps with one exception, eminently scientific as well as practical, and most of them are or have been great teachers of medicine. Why have not their level headed and sensible efforts prevailed to a greater degree? Why should Englishmen themselves belittle English

methods and actually attempt to Germanize the University of London? Why should a big, broad-minded scholar and statesman like Lord Haldane become infatuated with things German? Why should the gifted and wise president of Toronto University think so highly of German methods of research as to forget the pressing needs of the majority of his students who do not desire to become Pasteurs or Ehrlichs, but to become general practitioners? Why should so many of our ablest philanthropists, business men of high calibre, and many other very worthy men value German methods so highly? Instead of answering these questions in detail, we may concede that there is much that is admirable in the careful, methodical, patient methods of the German scientists. There is much in the whole German educational machine that appeals to the instincts of successful men. The word, science, carries great weight, and properly so. Science is knowledge, and, more than that, it is the highest type of knowledge, medical or other. I admit that freely and have for many long years, but many of us insist that the art of medicine should not be neglected. Science should be dovetailed into art, and should be the mainspring and controlling power of the art or practice of medicine, but science and practice should not be divorced in the training of a general practitioner.

It is, of course, difficult to choose from modern science in all its departments the portions which are best suited to the needs of the medical student. The scientist who has not practised medicine is not qualified to make the proper selections. Through a process of evolution an unfortunate condition has come into a large proportion of our best equipped medical colleges. In framing the curriculum, each science man wishes to give all that is important in his department. As a rule, these are able and conscientious men and are anxious to help the students. It has often happened that two parties in a college are formed. The majority of the primary teachers with a minority of the final teachers work in the German direction, while the majority of the final teachers with a few science men work in the British direction. The science men generally win. Thus we have the medical curriculum framed really by the men least qualified for such a task. Outside the few men in Toronto there is almost a universal opinion in this Province, and in a great portion of the United States, that nearly every medical curriculum in North America is overburdened.

Let us consider the position in the University of Toronto. It happens that its medical faculty is composed of able men

both as to their professional attainments and their teaching capacity. For a long time there was much discussion as to British and German methods. At a certain time the pro-German won and the other side yielded with fairly good grace, as I think was their duty. It seemed right to give the methods selected by the majority a fair trial, especially as a new president and a new dean—both highly respected—appeared on the scene.\*

There is one feature about the German educational machine which is peculiar and at the same time unfortunate. It has destroyed the individuality and originality of the instructive teachers, and has thus impaired their usefulness to an alarming extent. Several months ago, a public man—not a physician—who knows Ontario well and is a very keen observer, asked me the following question: Why is it in the last few years I never hear a graduate say anything about his teachers in the University of Toronto? In former years the graduates and undergraduates of both the universities in Toronto were almost continuously telling me things about their teachers—including yourself, I may say. This question should make us all think rather seriously about the singular results of the machine methods. Let me illustrate by quoting from the presidential address last year: "John Caven—What shall I say of him?—I knew him best as I knew him first as a young and boyish looking lecturer in pathology twenty-five years ago. I thought I myself knew something about teaching, but I was glad to sit at the feet of John Caven, and learn afresh the art of making obscure things plain, and difficult things easy for the student. I have heard it said that he was the best teacher of pathology that the university has ever had. . . . 'His witty remarks,' 'quick repartee,' 'shrewd criticisms' endeared him to his pupils. He was a great teacher." Yet if Caven came back now he would have little or no opportunity to show his individuality or originality.

Now let us go back to New York. I have already said that certain men there were good teachers. Their forcefulness and lucidity made their lectures interesting, impressive, and inspiring. Even a dolt could not help learning much from their lectures. There was a singular but friendly rivalry between

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\*I had intended to express definite opinions as to the methods of imparting instruction now in vogue in our Provincial University, but I have decided not to do so now. When the commission, which we are told the Government will appoint before long, takes up the whole question of medical education and the granting of licenses, I shall be glad, after consulting the president, to give my understanding of the situation to that body.



them. Each did his best because he desired to be considered a good teacher, and as a consequence to attract large classes. Are there such teachers now in New York? Probably most of us think that men like Abbe and Holt do not come far behind them. Most people, so far as I know, think it is not a waste of time to listen to their instructive lectures.

The courses at many of our universities do not cover half or nearly half of the needs of the general practitioner. His chief aim is or ought to be to prevent people becoming so ill that they need treatment in a hospital. Preventive medicine from his standpoint comprises a host of things outside of ordinary sanitation and the prevention of infectious diseases.

I can only refer to a few of the important ailments which come under the care of the general practitioner, which urgently require treatment. The girl when growing into womanhood requires careful supervision for two, three, or four years. Watchful care with simple treatment often makes a young woman healthy and strong at twenty-one years, while through neglect during this period of her life she sometimes becomes a weakling or a nervous wreck. The woman going through the climacteric needs much care, at least she thinks she does, which amounts to the same thing in a way. As a matter of fact, the careful practitioner thinks carefully about the "flushes and heats," investigates thoroughly, and, as is well known, frequently detects a serious condition in time through bringing his patient to the surgeon, who can then save her life. As it is now in Toronto, a few women with such symptoms consult general practitioners, a few go to the gynecologist; but the majority go to the osteopath. These two conditions are simply illustrative. These and many other ailments require treatment such as the following: chronic constipation, "sour stomach," "heart burn," fitful appetite, headaches, backaches, bad breath, abdominal pains, common colds, stiff necks, etc. The proper treatment of these conditions, which are commonly known as minor ailments, will often prevent arteriosclerosis, and various other serious conditions, and yet none of these every day ailments will be found in a general hospital.

Unfortunately the general tendency of the times is to belittle the family doctor or the general practitioner as he is sometimes called. Some of our medical colleges almost boast that they do not pretend to manufacture such a commodity now. A similar condition is observed even in England, but it is not so pronounced as that now existing in this Province. Mr. Morrison, professor of surgery, Durham University, said a few

weeks ago: "For the present surgeons are pre-eminent, but this is only a temporary phase because the general practitioner, as soon as he can realize his position, will again become, as he always has been heretofore, the backbone of the profession."

The general practitioner realizes the fact that in recent years he has been discredited more or less. All he need do, however, is to assert himself, and he will soon regain the proud position he held thirty years ago as the most important member of the medical profession, and by far the most useful one in the interests of the public. Doctor McCallum says, as I have before mentioned, "that there is setting in a reaction and that our fetish worship of laboratories is changing." We certainly have evidence that radical changes are taking place in many cities of the United States, where the family doctor is coming back to his proper place.

Thirty years ago, in Toronto, the family physician flourished, having the confidence, friendship, and love of those whom he cared for. He treated his patients as well as their diseases. The relationship between doctor and patient was in a large proportion of cases almost sacred. When special work was required, he chose the specialist. Now a large number of the public want specialists only, and are inclined to make the choice themselves. This feature is a serious one and means extra danger and cost to the patient in a large proportion of cases.

A singular result of science stuffing has been a remarkable growth of irregular methods, of which the amazing prosperity of some of these practitioners is a striking example. There is an instinct in a large portion of the public which craves for treatment of themselves as well as their diseases. They want a bit of human sympathy, perhaps even more than they desire mathematical precision. As many of our universities have ceased to train every day doctors, a large portion of "well to do" citizens in Toronto (and I have been told of other cities in Ontario, such as Hamilton), who formerly had family doctors of the "regular sort" are now under the care of men outside the regular profession.

The opinions I have expressed may be briefly summarized:

1. The medical curriculum is overloaded.
2. There is no proper training of the general practitioner.

I do not intend to make any suggestions now as to procedure in the future, but I think the opinions of those who advise the institution of two courses—one for general practitioners, and another for specialists—are worthy of consideration.—*New York Medical Journal*.

## THE EMPLOYMENT OF BORIC ACID IN DISEASES OF THE SKIN

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Boric acid has a very extensive use in diseases of the skin. It is not only a non-irritating antiseptic; it is soothing and is used as a soothing lotion in the eye. In conformity with its real nature the powder feels smooth and unctuous. As in many instances an afflicted skin is irritated not only from the infection but also from the state of the system, the advantage of employing an antiseptic that is at the same time bland and soothing, is obvious, even if the antiseptic action is weak or only inhibitory. (Douglas W. Montgomery, *J. A. M. A.*)

A hot boric acid solution is of great benefit in the local treatment of acne. Three heaping tablespoonfuls of boric acid powder are added to the usual quantity of hot water used in washing—about three quarts. The patient should sit, leaning over the bowl, and soak the face well with towels wrung out of the hot solution. It softens the epithelium and acts as an excellent detergent, removing the grease and many of the micro-organisms, and decidedly increases the efficiency of a resorcin or sulphur application.

Moist heat together with a non-irritating antiseptic is the typical therapeutic indication in the primary stage of active congestion in furuncles. These indications may be met by employing gauze dipped in hot saturated (4%) solution of boric acid, and after each soaking to rub in a salve of 1% red mercuric oxid in vaseline.

An efficient manner of treating suppurative folliculitis of the vibrissæ of the nares is to set before the patient a tin cup of saturated solution of boric acid, kept hot by placing it over the flame of a spirit lamp. The patient takes pledgets of absorbent cotton, dips them in the hot solution, and pushes them into the affected nostril, repeating this during ten or fifteen minutes till the tissues are well softened, and the crusts softened and loosened. Calomel, 12 per cent., or xeroform, 12 per cent. in vaseline is then well rubbed in. This procedure may be repeated two or three times a day. Care must be taken both to soak thoroughly and anoint the fossæ behind the nose tip, as these hollows are a favorite residence for germs in this affection.

Streptococcic infection of the skin when it appears as impetigo contagiosa frequently justifies its name of the impetuous disease. Like all the streptococci, those that cause impetigo



contagiosa love fluid which they cause to pour out as serum from the papillary blood vessels. This sticky serum forms heavy crusts that constitute an excellent protection for the underlying anaerobic bacteria. One of the chief therapeutic indications is to remove these crusts without doing any damage to the inflamed skin. This may often be best accomplished by applying a boric acid starch poultice. It is made in the following manner:

Take ordinary, common, lump laundry starch and pulverize it. This pulverization is to be done before measuring. Dissolve one slightly heaping tablespoonful of the pulverized starch in two tablespoonfuls of cold water. Add to this one coffee cupful of boiling paste. To this paste add a tablespoonful of boric acid, free from lumps, and stir well until thoroughly mixed. Fold the warm jelly between layers of thin muslin or cheesecloth, and apply as hot as can be borne.

In order to prevent the borders drying and sticking to the surface, they may be greased with vaseline, oil or zinc oxid ointment.

As a general lotion for more widespread use in very scattered pyogenic infection of the skin, a saturated solution of boric acid in diluted alcohol serves admirably. It is harmless, it is clean and does not stain, and is not disagreeable in either appearance or odor, and because of the alcohol cutting the fat of the cutaneous surface, both the alcohol and the boric acid are permitted to act effectively as antiseptics.

Perleche is another streptococcus infection. It is an infection in the corners of the mouth in infants. They constantly lick it and therefore keep it moist and in a favorable condition for the further growth and residence of these moisture loving microorganisms. The affection may spread down on the outer surface of the lip and supramental fossa, where the little pink wash-rag of a tongue follows and entertains it. The persistent foci, however, remain in the corners of the mouth, where there is cracking and a characteristic grey veil-like covering. Pledgets of cotton wet in warm boric acid solution should first be industriously sopped into the corners of the mouth, and, if possible, drawn across the corners saddlewise and left there. After this is thoroughly done, the ointment composed of the ointments of ammoniated mercury and zinc oxid is rubbed in.

Another pyogenic infection due, in at any rate the majority of instances, primarily to streptococcic infection followed by staphylococcic fouling, is the painful affection in the neighbor-

hood of the nails called runaround, paronychia or felon. When the affection has gone to the length of suppuration, it must be lanced, but before this occurs the process may be aborted by appropriate treatment. Both as an abortive measure, and as an antiphlogistic antiseptic measure, a dressing of a combination of boric acid and liquor alumini acetici may do excellent service. A lotion is made of

|                           |            |
|---------------------------|------------|
| Liq. alumini acetici..... | 30 fl ℥ i  |
| Acid boric sol. sat ..... | 300 fl ℥ x |

Employ warm to bathe the finger, and also as a wet dressing.

Gauze soaked in this solution is wrapped about the finger, and then an amply fitting rubber finger-stall is drawn over it and retained by a not too tight bandage.

Used either alone or combined with other powders, boric acid is very valuable in many discharging diseases of the skin. An excellent powder is made of equal parts of boric acid and tale, or of equal parts of starch, zinc oxid and boric acid.

Boric acid ointment is an excellent non-irritating preparation with a multitude of uses. It is an ointment that, more generally than any other, is well prepared, and this is a point of importance, as ointments are often wretchedly made. In seborrheic conditions this ointment will sometimes agree when those more usually employed fail.—*Medical Review of Records*.

### Iodine Vapour in Ophthalmic Therapeutics

Bonnefoy reports his experiences of the use of vapours of iodine in various eye diseases (*Congrès de la Soc. Française d'Ophtalmol., Paris*). He obtains the nascent vapour of iodine by heating iodoform in a special ampoule. Iodine vapours have a marked reaction on the eye, provoking pain, conjunctival œdema, and sometimes a fibrinous exudation with congestion of the free borders of the eyelids and a secretory reaction of the lacrymal sac. The vapour has a modifying action on chronic affections of the lacrymal sac, and favourably influences diseases of the eyelids, especially ulcerating plepharitis, as well as corneal ulcers and trachoma with pannus.—*British Medical Journal*.

## Editorials.

### THE CANADIAN PUBLIC HEALTH ASSOCIATION

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As before announced it was expected that the meeting of this association for 1914 would be held in Port Arthur and Fort William last September. The war dislocated matters to such an extent that the local committee, which really had the matter in charge, decided that they could not hold the meeting.

An effort was made early this year to have a meeting in Vancouver in May in conjunction with that of the Canadian Medical Association. As our readers know the executive of that association decided to postpone their meeting for a year.

The officers of the Health Association thought it advisable to hold a meeting this year and make the sessions all general. Although preparations for the meeting were necessarily very hurried there was a general consensus of opinion that it was at least equal if not a little better than any of the three previous meetings. We think the Executive might well consider the advisability of doing more general session work at all future meetings. As a rule the general practitioners are more interested in the papers read at the general sessions.

Among the subjects discussed were the Housing Problem; Inspection of Public Charities and Schools; Sewage Disposal; Care of the Feeble Minded; Milk; Military Sanitation; Venereal Diseases, and Tuberculosis.

Among those present from the United States were Professor Phelps, of Washington, D.C.; Mr.



George Fuller, Sanitary Engineer of New York; Dr. Charles North, of New York; Professor Gunn, of Boston, and Dr. W. A. Evans, of Chicago. The able addresses delivered by these distinguished men added much to the success of the meeting.

We do not know how the Local Committee of Management, in preparing for the meeting accomplished so much in so short a time. It is only fair to say in connection with this work that very much credit should be given to Dr. Charles Hastings, who however got much valuable assistance from Dr. Bryce, of Ottawa; Dr. W. H. B. Aikins, the President of the Academy of Medicine; Dr. George Porter, Dr. Duncan Anderson, and Dr. Oswald Withrow, the Secretary.

The President, Dr. M. M. Seymour, who had been doing good work for the Association, made an excellent presiding officer, and delivered an able and interesting address.

In 1916 the meeting will be held in Quebec under the presidency of Dr. Charles Hastings, of Toronto. The other officers are: Dr. Hutchinson, Vice-President; Dr. George Porter, Treasurer; Dr. Withrow, Secretary; Vice Trustees—Ontario, Mr. Dalton; Manitoba, Dr. Douglas; Saskatchewan, Dr. McMillan; Alberta, Dr. Powell; British Columbia, Dr. Underhill; Nova Scotia, Dr. Hall; New Brunswick, Dr. Warwick; P. E. I., Dr. Johnston. Dr. P. H. Bryce, of Ottawa, was made Honorary President of the Association.

We are very glad that Quebec was chosen as the next place of meeting. We understand that the work of organization for the meeting will be chiefly

in the hands of Dr. J. D. Page, who is well and favorably known to the profession of Ontario.

We still hope that a meeting will be held at Port Arthur and Fort William as soon as possible. We presume, however, that these Twin Cities will not be considered as a place for meeting until after the termination of the war.

We are very glad indeed that a meeting was held this year, and to know that a meeting will be held every year, war or no war. We believe there is a general feeling now that the Executive last year should have taken up the matter, and ignoring the decision of the Local Committee of the Twin Cities, should have held the meeting for 1914 in Toronto, Ottawa or Montreal. We presume Toronto was selected this year because of the invitation extended to the Association at the Regina meeting by Controller McCarthy of this city.

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#### CANADIAN TROOPS

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From letters received recently we learn that early in September about 100,000 Canadian troops had gone to England. Of these only about 50,000 had gone to the front, the greater portion of whom were in Flanders with a small number at Malta and the Dardanelles. As intimated in former issues the University Hospital Unit was split up soon after its arrival in England. On July 22nd they took charge of one of the hospitals at Shorncliffe, known as the Military Hospital, which has an accommodation for 250 patients. During the month of August it was continuously filled, about five out of six being surgical cases. Not all of the University Unit, however,

are engaged in this hospital; two are on regimental duty, nine are working on "Medical Boards," and six are doing special work in London. Drs. I. H. Cameron and H. Bruce, with the rank of lieutenant-colonel, were attached to the Duchess of Connaught's Hospital at Tapleau, which is under the command of Colonel Gorrell, of Ottawa. In the latter part of August Doctor Bruce got permission to visit the hospitals in France. He expected to remain there until the first of October, when he will probably return to Canada with six months' leave.

It was expected that the Vancouver Hospital, which we think left for England during the last week of August, will take charge of the Shorncliffe Military Hospital and thus relieve the University Unit. It was expected that this unit would be shortly re-assembled and sent to France. The McGill Unit went to France early in August, but had practically nothing to do for three or four weeks. Even latest accounts show that in the latter week of August they had only 150 patients.

It was thought at one time that the Toronto University Unit would be sent to the Dardanelles, but the War Office wanted three small units instead of one large one; therefore University was retained in England, and three detachments under Doctors Casgrain, McKee and Etherington, respectively, have left for the Mediterranean.

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### THE MENTALITY OF THE KAISER

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It is said that a certain German professor a short time before the commencement of the war discovered many points of resemblance between the Prussian



Kaiser and the Caliguli. McLane Hamilton, of New York, told us in the *North American Review* about eleven years ago that there was a distinct insane trace in the Hohenzollerns, which early in their history found expression in cruelty, oppression and unmistakable insanity of other kinds, and in recent times by a mentally large degeneration which is strikingly exemplified in the present German Emperor. His childhood and youth were characterized by peculiarities of conduct that were psychopathic, and his early manhood was punctuated with frequent instances of insane behavior, which are becoming more conspicuous and continuous.

In another article which appeared last June Dr. Hamilton expresses similar opinions, and declared the Kaiser to be a menace to the world because he not only has shown an exceedingly bad judgment that belongs to those who are mentally inferior, but has delusive ideas of grandeur and consequent power of prosecution and conspiracy. His enmity towards England is said to be unfounded and morbid. The article concludes as follows: "In these civilized days theatrical display and the warlike methods of Attila, 'the scourge of God,' may for a time succeed, but when a mad man directs the conduct of war it could only end in defeat."

## NEWS ITEMS

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Some of the ladies who were selling flowers to collect money for military purposes have keen business instincts. At one of the booths they ran out of flowers before the affair was closed. Having a short time to spare one of them went out, met an Italian with a bunch of flowers, and bought the lot for twenty-five cents, brought them in and sold them for nine dollars. The proceeds from this booth were to go to a certain convalescent hospital in France.

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The following resolution was adopted by the Council of the Academy Meeting, August 15th: "That whereas the Council of the Academy of Medicine, Toronto, have in view a number of cases of physical disability of soldiers returning from the front; and whereas it is urgently necessary to make provision for their proper classification and treatment; therefore, be it resolved, that the attention of the Federal and Provincial authorities be directed to the necessity for forming an organization and providing an institution which would serve not only as a place for investigation and temporary treatment, but also a clearing house, whence cases could be distributed to their homes, hospitals, convalescent homes, or homes for the permanently disabled, according to the necessities or progress of the individual cases."

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### **Annual Meeting of the American Medical Editors' Association**

The annual meeting of this Association will be held at the McAlpin Hotel, New York City, on October 18th and 19th, under the presidency of H. Edwin Lewis, M.D., editor of *American Medicine*. A most interesting literary programme has been prepared upon important subjects of particular interest to every medical editor in this country.

Coming at a time when clinics and operative work are in full swing, an unusual opportunity will be afforded to those members who desire to observe clinical work, and for those who are interested in the business side a more propitious time and place could not be selected.

The annual banquet will be held at the McAlpin Hotel on the evening of October 19th. These delightful occasions of the American Medical Editors' Association are events long to be remembered, and the local committee assure us that this banquet on the evening of October 19th will exceed all previous efforts.

### WAR ITEMS

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We are told that at the end of August Toronto had given 25,000 soldiers for active service.

Dr. George Musson, of Chatham, went to the front with the first contingent, and at last accounts was in France.

The Grand Lodge of the I.O.O.F. has offered the Ontario Government \$1,000 for an Oddfellows' Ward in the Ontario Hospital.

Dr. Gordon Copeland, of Toronto, served for a time as surgeon on the Allan liner *Hesperian*, which was destroyed by a German submarine. He speaks very highly of the staunch boat and the sturdy captain.

Dr. Ralph E. Thompson, a member of the St. Louis University teaching staff, returned from France, where he had been for some time a physician in an English hospital, September 5. He predicts that the war will last for five years.

Dr. J. A. Robertson, of Stratford, and his son and partner, Dr. Lorne Robertson, offered the Council of the City of Stratford \$1,000 for a machine gun for the Perth County soldiers. The generous offer was accepted with thanks.

Dr. J. C. Connell, Dean of the Medical Faculty, Queen's University, received a cablegram from Dr. Fred. Etherington (Lieut.-Col.), commanding Queen's Stationary Hospital, stating that the hospital was established in Cairo, Egypt, with five hundred beds, August 29th. The members of this hospital unit sailed from Montreal, July 20th.

Three of the Canadian Units, A.M.C., reached the region of the East Mediterranean about the middle of August. The three Units are No. 1 Stationary, in charge of Dr. C. S. McKee (Lieut.-Col.); No. 3 Stationary Hospital, in charge of Dr. H. R. Casgrain (Lieut.-Col.); and No. 5 Stationary Hospital, in charge of Doctor Etherington (Lieut.-Col.). There are now two units on the Island of Lemnos, while the Kingston unit is still at Cairo.



Dr. Donald Armour speaks in very high terms of nurses trained in the Hospital for Sick Children, Toronto. He mentions especially Nurse Panton and Nurse Mitchell (a niece of Dr. Allen Baines). He says Miss Mitchell is the finest operating theatre nurse he ever worked with.

The reports of the conditions of the Military Camp at Niagara during the last four months have been remarkably good. Since Dr. John Amyot went to the front with the University Hospital Unit, Dr. J. W. S. McCullough, C.O.H., Ont., has had charge of sanitary matters in the camp.

Dr. D. B. Bentley, of Sarnia, and his A.M.C. Unit, had a serious time at the battle of Langemark, where his hospital was situated two miles from the front. There were three killed and seventeen wounded of the company. At last accounts Major Bentley was in Southampton in charge of the base depot for Canadian medical stores.

Dr. Chas. Hodgetts (Lieut.-Col.), of Ottawa, the Red Cross Commissioner, was in London at last accounts. During the first half of August he made an extended tour through France, where he visited the Canadian Field Ambulances, Clearing Stationary Hospitals and Red Cross Store Depots. While in Paris he made arrangements for the distribution of supplies from depots to needy French hospitals.

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### **The Canadian Hospital at Le Touquet**

J. P. C. writes that he has grateful memories of the good work of the Canadian Hospital (No. 2 Stationary), Le Touquet, North France. "In January last," he says, "the battalion was encamped at Etaples, outfitting for the firing line. The weather was about the worst that could be imagined, and I, as medical officer of the battalion, had to send batches of men to hospital every day in the week, as many as forty a day on the sick list, suffering from rheumatism, tonsillitis, influenza, eczema, bronchitis, and some bad cases of sore feet. At length my own turn came—cold shivers, pains in back and limbs, relaxed throat, loss of appetite, and general malaise with high temperature were all unmistakable symptoms. I hung around on duty in pain, cold and misery for three days that seemed as long as ten, unwilling

to report sick; but eventually a kind brother medico took me in hand and saw me safely to 'The Canadian,' as the institution is known in that section. I was shown to a real bed in a nice cheerful room, with a blazing coal fire in one corner, which helped materially in restoring the chilled circulation. My temperature was found to be 103 deg., and I felt so shaky I did not care to venture a warm bath, but had a hot foot-bath instead, hot drinks, plenty of blankets, aspirin (10 grains) and—rest. I saw some poor fellows terribly frost-bitten, principally in the feet and legs, others in a lesser degree, the condition known as 'water-bite,' caused by standing for hours or days in liquid mud. The medical officers, nurses and attendants are all Canadian; Colonel Shillington, the able and popular chief of staff, is well seconded by Captain Young, and kindness and efficiency seems to be their motto. The requirements of religion are not forgotten, there being Church of England and Catholic chaplains on the staff. When I essayed a walk abroad I discovered that this immense building, which before the war was the Golf Hotel, was only ten minutes' walk from the sea, right in front through the golf links; on the right sand-dunes principally; left and at the rear a dense forest of primæval pines; it is an ideal situation, a lovely land, beautiful even in winter."

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### **The Supply of Medical Officers—Temporary Rank in the R.A.M.C.**

Sir,—I desire to enter an earnest protest against the letters appearing under this heading in your issue of July 17th. Whilst multitudes of men over 40 would gladly give up great prospects to serve in any humble way in the forces of the Crown, but find the door closed to them in ordinary cases, we of the medical profession have the inestimable privilege of serving our country under what I consider to be generous conditions. Let us consider separately the two questions of pay and rank.

As regards pay, we receive an allowance which is much higher than that which, under normal circumstances, would be granted to a lieutenant; and, though it will mean financial loss to some, yet that is not worthy to be compared with the loss of professional men in other callings, whose only avenue to service for their country may be through the ranks, or by becoming a second lieutenant at a comparatively small salary.

But the main question before us is that of rank. I consider it a high honor to sign myself "Lieutenant R.A.M.C.," and, although I am 50 years of age and have only had three months' service, I have not found that my rank has hindered me from using any powers which I possess in the best way. I am on the staff of one of the home hospitals, which, with two exceptions, is worked by lieutenants, each of whom has a large measure of responsibility, and, so far as I have seen, we have better professional work than those of higher rank who are largely concerned with administration.

The idea that age should be the test for advance in rank in spite of want of experience is most unreasonable. It would hold in no walk of life. The man who wishes to attach himself to any new undertaking when over 40 will inevitably find that he must play second fiddle to juniors. It is so even in our own profession.

Your correspondents write as if to serve in the army as a medical officer was quite on all fours with general or any other kind of civilian practice. Obviously it is not, and if there is any cause for complaint it would with much more justice come from the regular officers of the R.A.M.C. or of the Territorial Force, who have seen us new recruits admitted to the service on a specially favored footing.

I hope we may soon see an end of these grumbles. I do not think they are worthy of our great profession, which is certainly not wanting in patriotism. No one is bound to serve his country in this special way if the conditions seem too difficult, but if we do so, let us do it cheerfully. I am, etc.,

A Temporary Lieutenant of Fifty.

*British Medical Journal*, July 22nd.



## Personals

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Dr. Greer has removed to Regina, Sask.

Dr. G. Sterling Ryerson, of 66 College Street, will resume practice October 1st.

Dr. J. G. McLeod, of Kincairdine, is on the active staff of one of the Red Cross hospitals in England.

Doctor Bailey, formerly Medical Health Officer, Moose Jaw, is now surgeon to the 46th Battalion.

Doctor Warnock, M.P. for Macleod, Alta., is in charge of the Imperial Remounts at Montreal.

Dr. A. D. McKay, of Fort William, went to France in July, and has joined the French A.M.C.

Dr. Horst Oertel has been appointed Associate Professor of Pathology in McGill University.

Dr. John R. Irwin, of Cobourg, is now with one of the A.M.C. Units in the southern part of England.

Dr. James M. Wilson, of Toronto, has joined the Montreal A.M.C., and reached England, August 3rd.

Dr. E. S. Bolton, formerly of Medicine Hat, has been appointed Medical Health Officer of Brandon.

Dr. Jack Maynard has been appointed Medical Officer of the 92nd Battalion, which is at present at the Niagara Camp.

Dr. W. D. Sharpe (Capt.) left August 3rd, and went to Belgrade, Serbia, to take charge of a military hospital in that city.

Dr. H. J. Stevens, of London, has been appointed Medical Officer of the 70th Battalion, which was recently raised in the London, Ont., district.

Dr. Walter W. Wright has resumed practice at 143 College Street, and announces that he will confine his attention solely to diseases of the eye.

Dr. R. B. White is Acting Medical Health Officer of Pen-ticton, B.C., during the absence of Doctor Channing-Pearce, who is at the front.

Sir James Grant, of Ottawa, who took a leading part at the Canadian Public Health Association meeting, reached the age of 84 in August. His many friends hope that he will live at least sixteen years longer.

Among the men who joined the expeditionary forces are four ex-football captains of Varsity, namely, Pete Campbell, Jack Maynard, Charlie Gage and Laddie Cassels.

Dr. Seymour Ross, of Regina, is doing post-graduate work in bacteriology and pathology in Cook County Hospital and in the City Laboratories at Chicago.

Dr. James Henderson (Capt.), formerly of Toronto, served in the South African War. After that he practised in Regina. He is now serving with the Army Medical Corps.

Dr. W. H. B. Aikins has returned from a trip to Pittsburg, where he visited the laboratories of the Radium Chemical Company. He also spent a few days in New York.

Dr. Alfred Haywood reached Toronto August 13th. He has recovered rapidly after his operation of appendicectomy, and will probably soon be as "fit" as ever.

Drs. Charles Hastings and Helen MacMurchy went to Waltham, Mass., August 25th, to visit the Institution for Feeble-Minded Children, and with them went one of the Controllers and the Chairman of the Board of Education. It is hoped that adequate provision will soon be made for such children in Toronto.

Hon. Dr. W. H. Montague, formerly of Welland, Ont., who has lived in Winnipeg for a number of years, was suddenly seized with a serious illness at his summer home, Kenora, the first week in September. At last accounts he was still confined to bed. The statement in our last issue that Doctor Montague had gone to England was incorrect. He intended to go but was prevented by pressing business in Winnipeg.

Dr. Chas. R. Dickson, Consultant in Electro-Therapeutics to the Toronto General Hospital, was elected an Honorary Fellow of the American Electro-Therapeutic Association at the annual meeting of the Association held recently in Atlantic City.

After the death of Doctor Hall the City Council of Chatham appointed Dr. G. Musson M.O.H. in appreciation of his patriotism. The Council cabled this information to the Doctor and asked him to name a substitute to act for him until he returned.

Dr. J. O. Orr (Lieut.-Col.) has entirely recovered his health, and since the Exhibition was closed has signified his desire to go to the front. His first experience in military matters was in connection with the 12th York Battalion. After that he was for a time an active member of the A.M.C.

Dr. Norman Gilmour, son of the Collector of Customs at Brockville, was in Australia when the war broke out. He went at once to South Africa and joined the forces under General Botha, afterwards going to England, where he joined the R.A.M.C. at London with the rank of lieutenant.

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We would draw your attention to the advertisement in this issue for Medical Superintendent of the Hospital for Infectious Diseases, Montreal.

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We understand that the first Convalescent Home in Canada for wounded soldiers to be fully completed and equipped is in Hamilton in the home of Mrs. P. D. Crerar.

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The final decision is that the Ontario Hospital will be situated at Orpington, a small town on the main line running from London to Dover, about fourteen miles from London Bridge Station. At last accounts Hon. Doctor Pyne was superintending the erection of the building and procuring of supplies. We believe that preparations as to the supplies are also going on in some of the Ontario Public Institutions.



## Obituary

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### PROFESSOR PAUL EHRLICH

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Probably no man in the world was held in higher respect by the people of Great and Greater Britain than Professor Ehrlich. His reception at the World's Congress in London two years ago was extremely cordial. He was perhaps the greatest biological chemist in the world, and apart from his great ability we understand that he had a very charming manner, and it was always supposed that he was absolutely honorable and truthful.

*The British Medical Journal* in an extended and laudatory notice says: "It is notorious that in Germany the professors are servants of the state and their political propagandists at need. Ehrlich was no exception to the rule, and accordingly subscribed his name a few months ago to a notorious declaration of faith made by 93 German men of science. The fact is an unfortunate illustration of the intellectual prostitution to which a rigorous system of state service leads."

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### WILLIAM ROBERT HALL, M.D.

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A painful surprise came to the profession of Ontario through the announcement of the death of Dr. W. R. Hall, which occurred August 21st. He was in fairly good health up to August 19th, when he had a stroke of apoplexy, which caused his death in less than two days.

He was born in York, Ont., in 1852, and graduated M.D. from Detroit Medical College in 1878, and became a registered practitioner of Ontario in 1884. He was Medical Officer of Health for Chatham for many years and was for a time a member of the Provincial Board of Health. He was President of the Ontario Medical Health Officers' Association at the last meeting, which was held in Peterborough in May. He delivered in his presidential capacity a remarkably able address at this meeting.

At the last meeting of the Ontario Board of Health the following resolution was passed: "That the members of the Provincial Board of Health, having learned of the death of W. R. Hall, M.D., M.O.H. of the City of Chatham, Past President of the Ontario Health Officers' Association, and a former valued member of the Board, expresses their regret at his untimely death and their sympathy with his widow and family, and that a copy of this resolution be sent to Mrs. Hall."

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### OBITUARY NOTES

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Dr. Chas. E. Findley, the discoverer of the mosquito origin of yellow fever, died at Havana, Aug. 22, aged 82.

Dr. James Wheaton, Pawtucket, R.I., who died August 13th, aged 92, was said to be the oldest physician in the United States. He graduated from Harvard sixty-nine years ago last spring.

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### Mental Laziness

"Mental laziness" is an easily acquired habit for the tired busy practitioner, and some stimulus is needed to arouse him from his intellectual hebetude; success in practice mitigates too often the pride in exact thought and his ambition may even reach the stage of "getting by" with his professional duties, and declining to become interested in the definite problems that may present themselves.—Everett A. Bates, M.D., *Boston Med. and Surg. Journal*.

## Book Reviews

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*The Principles of Bacteriology. A Practical Manual for Students and Physicians.* By A. C. ABBOTT, M.D., Professor of Hygiene and Bacteriology, and Director of the Laboratory of Hygiene, University of Pennsylvania. Ninth Edition, thoroughly revised. With 113 illustrations, 28 of which are colored. Lea & Febiger, Philadelphia and New York, 1915.

To have run through nine editions in nearly as many years is a compliment to any text book. This new edition has some rather radical changes, but they in no wise alter its value as a text book. Much of the historical part of the old volumes has been left out. It remains the standard work for medical schools.

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*Outlines of Internal Medicine for the Use of Nurses.* By CLIFFORD BAILEY FARR, A.M., M.D., Instructor in Medicine, University of Pennsylvania; Assisting Visiting Physician, Philadelphia General Hospital, etc., etc. Illustrated with 71 engravings and 5 plates. Lea & Febiger, Philadelphia and New York, 1915.

Although there may be some reasonable ground for debate whether nurses need such a text-book as this, yet Doctor Farr has spared no pains to make his work complete. This is not merely a compilation of signs and symptoms, to be learned off by heart, but the author has introduced much material of great use to nurses, such for instance, as the chapter on feeding. The book is not encyclopædic, but it will serve as a valuable reference after the nurse graduates.

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*Cancer. Its Study and Prevention.* By HOWARD CANNING TAYLOR, M.D., Gynæcologist to the Roosevelt Hospital, New York; Professor of Clinical Gynæcology, Columbia University; Member of the American Gynæcological Society, etc., etc. Lea & Febiger, Philadelphia and New York, 1915.

In a book of a little over 300 pages, the author gives the facts relating to cancer of every part of the body. Modern



methods of treatment are fully considered, and the work is well adapted to those of the profession interested in carcinoma. The object of the author is to increase the range of knowledge and thereby bring about the day when cancer shall be no more.

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*A Text-Book of Chemistry and Clinical Urinalysis for Nurses.*

By HAROLD L. AMOSS, S.B., S.M., M.D., Dr. P.H. Formerly Chemist Hygiene Laboratory, United States Public Health Service; Physiological Chemist, United States Bureau of Chemistry, etc. Lea & Febiger, Philadelphia and New York, 1915.

This is one of the nurses' text book series, and of course, has to be very simple. It fulfils its purpose admirably.

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*A Text-Book of Surgery for Students and Practitioners.*

By GEORGE EMERSON BREWER, A.M., M.D., Professor of Surgery at the College of Physicians and Surgeons, Columbia University, New York; Surgical Director of the Presbyterian Hospital, etc.; assisted by ADRIAN V. S. LAMBERT, M.D., Associate Professor of Surgery, College of Physicians and Surgeons, Columbia University; Attending Surgeon to the Presbyterian Hospital; and by members of the Surgical Teaching Staff of Columbia University. Third and enlarged edition, thoroughly revised and rewritten. Illustrated with 500 engravings in the text and 23 plates in colors and monochrome. Philadelphia and New York: Lea & Febiger. 1915.

The third edition of this well-known text-book shows that the work has undergone a thorough revision in order to keep it abreast of the developments of modern surgery. In this revision the author has been assisted by a large number of his colleagues, who have aided him when their particular departments are concerned. The result has been the production of a text-book excellent in every way.

The early chapters treat of surgical pathology, the infections, tumors, anæsthesia, technique. The various systems are then taken up in detail from a surgical viewpoint. Good use is made of illustrations to elucidate the points in the text, and many of these are in color.

The section dealing with tendon sheath infection is very full, and is largely based on Dr. A. B. Kanavel's "Infections of the Hand." Doctor Brewer's personal revision comprises the diseases of the face, neck, mouth, pharynx, larynx, pleura, lung, mammary gland, stomach, duodenum, liver, pancreas, spleen, kidney, and ureter.

As a conveniently-sized work on modern general surgery, Doctor Brewer's book should receive a hearty reception from both the profession and students of medicine.

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*The Principles of Human Physiology.* By ERNEST H. STARLING, M.D. (Lond.), F.R.C.P., F.R.S., Hon. M.D. (Breslau), Hon. Sc.D. (Cambridge and Dublin), Jodrell Professor of Physiology in University College, London. Second edition, with 566 illustrations, 10 in color. Philadelphia: Lea & Febiger, 706 Sansom Street. 1915.

With the appearance of the first edition of Professor Starling's "Physiology," three years ago, one might have thought that it would serve as a standard for many years. So many, however, have been the changes and advances in our knowledge of various phenomena that a second edition has been found necessary. These advances have been particularly in the knowledge of the circulation and of the voluntary muscles.

The whole work, covering some 1,200 pages, is divided into four books on General Physiology, the Mechanisms of Movement and Sensation, the Mechanisms of Nutrition, and Reproduction. It is hardly necessary to say that in presenting this text-book of modern physiology, the amount of literature reviewed has been enormous. The author frankly admits his indebtedness to many of his fellow workers, masters in their own special branches of investigation. Thus the work of Sherrington on the Nervous System; Leathes, Plummer, and others on Physiological Chemistry, and Bayliss on General Physiology is clearly followed.

The task of condensing these vast stores of knowledge into one volume has been most successfully accomplished, and an English text-book of Physiology, which attains to a standard far above all others, has been the result.

## Miscellaneous

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### The Delicate School Girl

Even the most robust and generally healthy children show the deleterious results of the modern system of educational "forcing" that prevails in most of our larger cities. The child that starts the school year in excellent physical condition, after the freedom and fresh air of the summer vacation, in many instances becomes nervous, fidgety, and more or less anæmic as the term progresses, as the combined result of mental strain and physical confinement in over-heated, poorly ventilated school-rooms. How much more likely is such a result in the case of the delicate, high-strung, sensitively organized, adolescent girl? It is certainly a great mistake to allow such a girl to continue under high mental pressure, at the expense of her physical health and wellbeing, and every available means should be resorted to to conserve the vitality and prevent a nervous breakdown. Regularity of meals, plenty of sleep, out-of-door exercise without fatigue, open windows at night and plenty of nutritious food, should all be supplied. Just as soon as an anæmic pallor is noticeable, it is a good plan to order Pepto-Mangan (Gude) for a week or two, or as long as necessary to bring about an improvement in the blood state, and a restoration of color to the skin and visible mucous membranes. This efficient hæmatinic is especially serviceable in such cases, because it does not in the least interfere with the digestion nor induce a constipated habit.

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Antiphlogistine is a physiological antagonist of the inflammatory process—deep-seated or superficial. It produces marked osmotic action upon the swollen tissues, thus relieving congestion because of its hygroscopic, hydrophilic properties. It is antiseptic, soothing and promptly effective.

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### The Value of Glyco-Thymoline in Treating Intestinal Disturbances

The condition of the alimentary canal in all diseases of that tract is one of either congestion or depletion of the villi.

Auto-intoxication follows a condition of depletion, and while this condition is not the direct cause of the "self-poisoning," the restoration to normal conditions would undoubtedly prevent septic absorption.



# The Treatment of Neurasthenia

"Stimulation is always succeeded by depression." That is a great law of Nature, which, if habitually ignored, results in deterioration and, ultimately, annihilation of living tissue.

Neurasthenia, really a condition of nervous exhaustion or "depression," presents in many cases a history of the prolonged use of coffee or tea either in moderate or excessive quantities.

To the habitue of coffee and tea the plaintive cry of his caffen-whipped, over-stimulated tissues is "Don't." But because of the momentary seductive exhilaration following each dose of the stimulant poison, this warning cry is not heeded until the tissues have "gone to smash." The nerve force and muscular energy have been spent, the organs of digestion and elimination are damaged, and we have before us a typical case of Neurasthenia.

These patients should be prohibited the use of coffee and tea and put on

## POSTUM

### "There's a Reason"

In so doing, we not only remove the cause of the disease, but we are giving the patient a pleasant food-drink which resembles coffee in appearance and snappy taste, but does not contain caffen or other drugs.

Postum is made of clean, whole wheat, skilfully roasted with a small quantity of wholesome molasses, and comes in two forms: The original Postum Cereal, must be well boiled. Instant Postum requires no boiling and is made instantly by stirring a level teaspoonful of the soluble powder in a cup of hot water. Both kinds are equally delicious and cost about the same per cup.

The *Clinical Record*, for Physician's bedside use, together with samples of Instant Postum, Grape-Nuts and Post Toasties for personal and clinical examination, will be sent on request to any Physician who has not yet received them.

The condition in diarrhœal diseases is one of stasis with a great amount of exudation of serum, the villi being greatly distended.

In either case a return to normal conditions is most readily effected by an agent producing an exosmotic action—in the one case to deplete and in the other to promote the exudation necessary to wash out the intestines and prevent auto-infection.

That Glyco-Thymoline will do this effectively has been demonstrated time and time again, and many clinical reports from many physicians testify to its great power as a curative agent in all such cases.

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### **Treatment of Onychia by Tonic Medication**

Vos Hugo (*Arch. Roentgen Ray*, May, 1915), has applied ionic medication with good results in the treatment of onychia. The treatment has consisted of soaking the part for a couple of hours by means of a pad moistened with a 5 per cent. solution of zinc sulphate. A thread of lint soaked in a 2 per cent. solution of zinc salt is gently insinuated within the nail fold, and a pad, zinc terminal, and current are then applied in the usual way. By the following day (in two cases) the angry skin had become pale, and the purulent discharge had given place to a thin sanious fluid, and a few days later recovery was complete. In a more severe case, which for eighteen months had involved practically the loss of the use of the hand, two applications of zinc ions, separated by a ten days' interval, were given. The discharge altered in character after the first application; within six weeks a new nail, with a well-formed lunula, had taken the place of the deformed nail, and there was no further trouble.—*British Medical Journal*.

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### **War and Insanity**

Some very interesting observations have been made by alienists in the north of Ireland on the relation of insanity to war. Last year, in his annual report, Doctor Nolan, of the Downpatrick Asylum, drew attention to the effect on insanity of the political unrest then felt in the north of Ireland. He held that the suppressed tension of the civil war agitation not only colored the forms of developing insanity, but also precipitated insanity in the predisposed. The rising rate of occurring insanity noted

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**THE BATHS** The Bathing Springs are similar to the waters of Bad Nauheim, but about five times as strong. THE RADIUM EMANATION FROM BRINE SPRING NO. 2 AVERAGES 64.8 MACHE UNITS PER LITER OF WATER, or nearly three times as much as any other American Spring known. For the treatment of Rheumatism, Gout, Diabetes, Obesity, Neuritis, Neuralgia, Anaemia, Diseases of the Digestive System, and Liver, Heart and Circulatory System, Kidney Disease, and Disorders of the Nervous System, we offer advantages unsurpassed in this country or Europe.

The Glen Springs is situated in a large private park with miles of well-built and graded walks for Oertel hill climbing exercises. Automobiling, Boating, Fishing, Music, Dancing. Well-kept Golf Course, Tennis Courts, Miniature and Clock Golf.

Our Illustrated Booklets and Latest Reports on our Mineral Springs will be Mailed on Request.

Correspondence with physicians solicited.

## Medical Council of Canada OCTOBER EXAMINATIONS, 1915

The examinations of the Medical Council of Canada will be held in Montreal and Halifax coincidently on October 12th, 1915.

Forms of certificate may be obtained from the Registrar at any time.

Registration for the October examination will close promptly at the Registrar's office in Ottawa on September 14th, 1915.

R. W. POWELL, M.D., Registrar, 180 Cooper St., Ottawa, Ont.



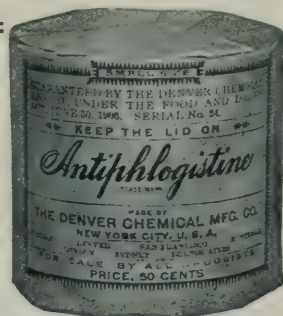
last year suddenly subsided when the ferment of domestic politics was replaced by the call to united opposition to the common foe. The call, Doctor Nolan suggests, braced the mentality of the people to a healthier tone, and there has been a marked decrease in the occurrence of insanity. The admissions to the Belfast Asylum have shown a similar decrease—from 276 in the previous twelve months to 220 in the last twelve months. Doctor Graham's explanation is not quite the same as that offered by Doctor Nolan. He suggests that it is not the great tragedies of life that most threaten mental stability, but rather the small worries and the drab monotony. He looks forward to a great decrease in mental instability after the war, while, on the other hand, Doctor Nolan fears an increased insanity, due to traumatic and allied causes. It is, doubtless, too early to speak with certainty on the meaning of the phenomena observed, but both Doctor Nolan and Doctor Graham merit our thanks for drawing attention to the facts.—*The Medical Press*.

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### **The Pemphigoid Eruptions**

This group of skin lesions has lately attracted some attention, and in the *British Journal of Dermatology* for June Dr. J. M. H. Macleod sums up our present knowledge on the subject. His remarks are based upon a study of about 100 cases. Having access, as he had, for the purpose of collection to many sources, the comparatively small number of cases betokens the rarity of this class of case. It is important, however, to observe that under the above term he excludes cases of pemphigus neonatorum and pemphigus acutus, since both are septic infections. There are three cardinal features of the pemphigoid eruptions: (1) multiformity in the eruptions; (2) herpetiform grouping; and (3) intense subjective symptoms. Multiformity is due to a number of causes—variations in the type of initial lesion, differences in the stage of evolution of individual lesions, and so on. The types of initial lesions met with are the familiar prurigo-like papules, papulo-vesicles, bullæ, or urticarial patches. They may be level with the surface or definitely raised; there may be a tendency to circinate figures with rings of vesicles at the border. The vesicles vary in size from a pin's head to a lentil. Sooner or later in all cases they are surrounded by an inflammatory halo. The vesicles are often grouped in clusters of six or eight; generally they remain discrete. The bullæ are usually about the size of a small bean and tense, the

# Entirely Covers The Field—



from a simple Boil to Pneumonia—  
from Infancy to Old Age—from New  
York to Calcutta; wherever and  
whenever there is profound, or su-  
perficial Inflammation—

**Directions:—** Always  
heat in the original con-  
tainer by placing in hot  
water.

Needless exposure to the  
air impairs its osmotic  
properties—on which its  
therapeutic action largely  
depends.



is indicated as an active, aggressive and most valiant  
Antagonist of the Inflammatory Process.

A recent case of extreme  
inflammation, resulting from  
accidental application (with  
corrosion and intense pain)  
of Hydrofluoric Acid,  
during dental practice:—

“In desperation, after failure  
to relieve with other means,  
Antiphlogistine promptly  
controlled inflammation—the  
wound healing with-  
out disfiguration.”

---

*Physicians should WRITE “Antiphlogistine” to AVOID “substitutes.”*

**“ There’s Only One Antiphlogistine. ”**

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contents being at first sterile, but later opaque and purulent. Subjective symptoms are of markedly paroxysmal character, and consist of pricking, itching, burning, or actual neuralgic pain; they vary in type and intensity. General health is often good. Mucous membranes are not usually implicated. Eosinophilia in the blood is a well-recognized sign, though not so constant as was once supposed. The urine may contain indican, generally coincident with the outbreak. The course of the condition is invariably chronic. Of its pathology little is known. The changes in the corium would appear to be primary, those in the epidermis secondary. It may occur at any age, and is equally common in males and females. Pregnancy is the most definite determining cause, and it may recur with successive pregnancies. As to its causation little is known. The most prevalent theory is that it is an intoxication and caused by the circulation in the blood of some endogenous toxin. It has also been suggested that the nervous system may be related in some way to the eruption. Treatment is unsatisfactory. Arsenic has been most used; it appears, however, to have only a controlling and not a curative effect and for this effect to be exerted it is necessary to reach the limit of toleration. Locally, soothing remedies are helpful.—*The Lancet*.

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### Disinfection of Surgeon's Hands

Ellice McDonald (*Surgery, Gynecology and Obstetrics*) employs a solution of forty parts of acetone, sixty of methylated spirit, and two of pyxol as a germicide for washing of the surgeon's hands before an operation. Acetone need not be chemically pure, and may be obtained from oil and colourmen's shops, as it is used in the arts for removal of varnish. The solution is poured into a vessel big enough to admit the hands, which are immersed in it for one minute. A nailbrush is also employed, and a gauze cloth for the arms, to aid the solution in the penetration of every crevice. This solution is inexpensive, unirritating to the skin, and efficient. It may be used repeatedly, and, though it acquires a sediment, this detritus in no way impairs its efficiency. After obtaining, through laboratory experiments, clear evidence of its bactericidal qualities, McDonald has employed this solution for the surgeon's hands, and for the sterilization of the skin of the abdomen, for over a year with uniformly satisfactory results. In consequence he has found that operation wounds heal more perfectly than after any of the methods of



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ulations, Floating Kidney,  
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Two Grains each to the Drachm

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Antiseptic

(DIURETIC)

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Indicated in

GENITO-URINARY DISEASES—CYSTITIS—PROSTATITIS  
URETHRITIS—ALBUMINURIA OF PREGNANCY, ETC.

### WATERBURY CHEMICAL CO., LTD.

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disinfection current among great operators at the present date. McDonald has discarded rubber gloves, but fortifies the skin with a hand varnish which is easily applied.—*British Medical Journal*.

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### A New Test for Urinary Sugar

The difficulties associated with the performance of the ordinary tests for sugar in the urine, of which Fehling's is by far the most commonly employed, are well known, so that the invention of a new diagnostic reagent is a matter of considerable clinical importance. In the *Biochemical Journal* for March, Dr. William Cramer describes a method of employing the reduction of a weakly alkaline solution of mercuric oxide to metallic mercury in the presence of suitable sugars, which he considers to have special advantages as a test. The reagent is prepared by dissolving 0.4 gr. of mercuric oxide, red or yellow, with 6 gr. of potassium iodide in 100 c.c. of water, and adjusting the alkalinity of the solution so that 10 c.c. are neutralized to phenol-phthalein by 2.5 c.c. of decinormal acid. The resulting solution is colourless in the cold and turns slightly yellow on boiling. To test for sugar in urine 3 c.c. of the reagent are heated to boiling; then 0.3 c.c. of urine is added and the mixture again boiled. On removing the test-tube from the flame, the mixture darkens if sugar be present, and a deposit of black metallic mercury gradually settles to the bottom. Not only glucose, but lactose, maltose, xylose, and arabinose give the reaction, while cane sugar does not. The sensitiveness of the test fluid can be varied by increasing or diminishing its degree of alkalinity, and the point fixed, as stated above, corresponds to a degree which gives a faint reaction with normal urine, which is known to contain about 0.1 per cent. of sugar. If the reagent is made more alkaline and thus more sensitive, it may give a precipitate with creatinin and other organic substances. Dr. Cramer finds that the "2.5 standard" solution gives a definite reaction with small amounts of sugar in the urine, which only produce doubtful results when tested with Fehling's fluid. He suggests as an indication of the degree of the reaction the possibility of reading print through the solution when boiled in an ordinary test-tube 30 seconds after this is removed from the flame, a few drops of acetic acid being first added to remove any possible turbidity due to phosphates. Small quantities of sugar can thus be recognized and roughly estimated. Ammoniacal urine must not be used for the mercuric test any more than in performing Fehling's reaction.

**ERGOAPIOL**  
(Smith)

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### The War and Alcohol

One of the most extraordinary features of the present devastating war is the effect it has had on the consumption of alcohol. For many years, temperance reformers have been inveighing vociferously against the evils wrought by the use of alcoholic beverages and recommending that some form of prohibition be instituted. However, as a rule, these indictments of drink have been as "the voices of those crying in the wilderness." The war has changed all this, and in some of the European countries the past nine months have witnessed greater progress in temperance reform than would have been thought possible from eight years of vigorous campaigning. Russia, which in many respects, and certainly as regards its peasant class, was the most drunken country on the face of the earth, by one stroke of the pen has been rendered the most sober. Absinthe, one of the most deadly spirits and one of the most harmful in its effects on the nervous system, has been abolished from France. In Germany the liquor traffic is strictly controlled and in Great Britain strong efforts are being put forth to check the sale of alcoholic beverages. It will be more difficult to prevent the excessive consumption of alcohol in Great Britain than in any other countries. The British have always prided themselves on their freedom to do as they wished, provided that they conformed with the law. One of the most eloquent prelates that ever sat on an archbishop's throne in England, Archbishop Magee, once said in a speech made in the House of Lords at a time when prohibition was advocated, that he would rather see Englishmen "drunk and free," than "sober and slaves," and this expresses the general opinion of Britons. Still, as long as the war continues, it may be taken for granted that military and governmental areas will be kept under drastic restrictions. Thus the war in Europe, by emphasizing the impairment of human efficiency resulting from the excessive use of alcohol, has had a more far reaching effect on the consumption of liquor than the reformers ever dreamed of.—*American Medicine*.

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# The Canadian Practitioner and Review

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## Original Communications

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### POISONING BY NOXIOUS GASES\*

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By JOHN W. S. McCULLOUGH, M.D.

Major A.M.C., D.A.D.M.S., Sanitation, 2nd Division.

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The following remarks upon gas poisoning at the front are based upon reports in the British journals, and particularly upon a most interesting account of 685 cases which came under treatment at one of the casualty clearing stations during the first week in May last. I have, of course, no more personal knowledge of such cases than any of you, but I thought that perhaps it might be useful to summarize for the medical officers of the camp material which could not be other than useful to you and to which some of you, at least, might not have access.

The series of 685 cases the writer divided into—

- (a) Those who seemed in imminent danger of death from asphyxiation, 120 in number.
- (b) The remainder, those suffering from the effect of the gas, who did not appear in immediate danger.

Of the severe group, 33, or 5 per cent., died, 29 of them within thirty-six hours after admission. Many other cases had already died on the field or in the field ambulances.

The first cases came in at 1.30 a.m., the gas having been used against them at about 7.30 p.m. the previous evening. Most of the patients were in a choking condition, some making agonizing efforts to breathe, clutching their throats and tearing at their clothes, propping themselves up to breathe and again falling back exhausted. One can imagine the mental impression conveyed to the medical officers in charge of patients in such a con-

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\* Delivered to medical officers at Camp Niagara.

dition. There was marked cyanosis, especially of the lips and ears, and in a few cases there was a light frothy discharge from the mouth and nose. Some, especially the older men, were in a state of collapse, with hands and faces of a leaden hue and with heads falling forward on their chests. The majority of these did not rally. Most of them were, in addition to the gas poisoning, greatly exhausted by continuous fighting against the poison. All except the moribund were fully conscious and fighting desperately for life. Fourteen men of the first 17 died. All degrees of asphyxiation were noted.

The typical case was: cold, temperature sub-normal, conscious, pulse slow and full (except in the collapsed), face cyanosed, expression anxious. Some sat up with head thrown back gasping for breath, others lay on their side with head over the stretcher trying to get rid of expectoration. Respiration was jerky and hurried, often 40 to the minute, with choking cough and frothy expectoration, with inspiration the chest was expanded to fullest capacity, the auxiliary muscles being brought into play as in asthma. Percussion note was somewhat dulled, moist sounds were heard all over the chest.

*Progress of Cases.*—Those who lived passed through three somewhat definite stages:—

- (1) Asphyxial.
- (2) Quiescent or intermediate.
- (3) Bronchitic.

The first stage lasted about 36 hours; the patient, if he lived, falling asleep and awakening somewhat better. This continued about half a day, during which he was evacuated to the base, if possible.

Following the second stage, bronchitis commenced, which was usually not severe; four of the worst cases dying in this stage. The frothy secretion gave way to a thick, greenish mucopurulent sputum, temperature  $104^{\circ}$  F., pulse small, rate up to 160, respiration more shallow, going up to 70 per minute before death.

*Treatment.*—Post-mortem examination having shown that the patients died of acute congestion and œdema of the lungs. The indications were:

- (1) To expel excessive secretion from the lungs by emetics and stimulating expectorants.
- (2) To diminish secretion.
- (3) To support the failing heart and re-oxygenate the blood.

*General Treatment.*—Patients were placed in open air or in well-ventilated rooms with free air, and given

Extra blankets,  
Hot-water bottles,  
Hot drinks.

*Special Treatment.*—(1) Emetics. The first 80 cases were treated with emetics as a routine; later ones, if much choked, with secretion. The most effective emetic was salt solution in 10 oz. doses, followed by tickling the throat with brush or by patient using his own finger. This, by bringing up quantities of frothy expectoration, gave marked relief. V. Ipecac and Apomorphine were not so successful.

(2) Artificial respiration (Schafer's method) (see page 529). Used with striking success, even in moribund cases.

(3) Stimulating expectorants. Every case was given Am Carb, gr. X, 3 ta.; later this was increased to gr. XV and V. Ipecac MXV added. This treatment gave good results.

(4) Posture. The action of emetics and expectorants was aided by altering the patient's position from sitting up to lying on the side with head low, so as to aid expectoration.

*To Diminish Secretion.*—Atropine gr.  $1/30$  was given, but was too late to give much result. If given early it should be of service.

*To Support the Failing Heart.*—(1) Venesection 10 to 15 oz.; blood did not flow freely. Leeches also were used. Results not apparent.

(2) Pituitary Extract, 1 cc was given with marked effect when pulse showed signs of weakening.

(3) Oxygen, given intermittently in the cyanosed cases gave benefit.

(4) Benzoin inhalation with steam in a closed tent gave some relief.

(5) Opium. In cases of extreme restlessness Tr. Opii M. V. for three doses gave great relief, allaying mental strain and producing sleep.

(6) Inhalations of  $\text{CHCl}_3$  and Amyl nitrite were used without success.

*Pathological Changes.*—Noted in 10 cases, dying in less than a day to five days after inhalation of the gas.

*Respiratory System.*—Larynx and trachea congested with some œdema glottidis. The intense congestion of trachea could be traced into the larger bronchi. The trachea and bronchi filled with thin, light yellow frothy secretion. This was highly



albuminous and solidified like white of egg when heated. The smaller bronchi could not be traced, being lost in the intense congestion and œdema. The lungs were most voluminous, weight greatly increased above normal. The pleural surfaces of the lungs could be marked out into patches of lighter-grey and dark-greyish brown.

Small sub-pleural hæmorrhages were extremely numerous, lung tissue a deep maroon-red color, fluid flowed from the cut surfaces.

The light-grey patches just referred to were most numerous along the margin of the lungs and on the diaphragmatic surface, but were present up to the very apices. These were found to be areas of actual acute emphysema, and air could be made to pass from one side of such an area to the other. The emphysema did not extend to more than half an inch into the lung. The lymphatic channels stood out, the flow being obstructed.

*Heart*.—Distended in all chambers, especially right auricle and ventricle—filled with recent clot, no ante-mortem thrombus being found.

*Abdomen*.—Venous congestion only.

*Stomach*.—In all cases marked catarrh found. Interior covered with thick yellow mucus with submucous hæmorrhage a marked feature.

*Head*.—Congestion of the meninges and cerebral tissue.

*Histology*.—All parts of lungs not emphysematous showed marked congestion of the capillaries and many alveoli filled with an albuminous amorphous substance taking eosin stain. In this substance fibrin could be here and there detected along with red corpuscles and a few leucocytes. A few alveoli were filled with red blood corpuscles.

In the parts affected by emphysema many of the alveoli were broken down, five or six running into one. Those not broken down were much distended, in some cases to twice their size. This distension had obviated any tendency to congestion and accounted for the light-grey patches. The bronchi in the emphysematous patches were empty of contents in contrast to the congested and œdematous lung tissue in the parts.

*Summary*.—(1) Treatment:

- (1) Abundant supply of fresh air.
- (2) Emetics of salt water, if patient very cyanosed and had not vomited already.
- (3) Am. Carb. gr. XV  
V Ipecac MXV 3 ta.

- (4) Oxygen inhalations in cases of marked cyanosis and dyspnœa.
- (5) Opium Tr. MV to XV in restless cases to allay mental strain.
- (6) Pituitary Extract 1 cc and brandy if heart threatened to fail.

None of the cases remained in the casualty clearing station longer than five days after inhalation of gas.

#### TWO CHIEF CLASSES ON ADMISSION:

- (1) Acute Asphyxiæ.
- (2) Sub-acute.

One-quarter of acute cases died, the symptoms being orthopnœa and marked cyanosis. The sub-acute cases showed dyspnœa, never amounting to orthopnœa, and were cyanosed to a lesser degree.

The acute cases, as the post-mortem conditions would indicate, did poorly, the sub-acute did exceedingly well, Am. Carb. in full doses giving best results.

The gas used is entirely or almost entirely chlorine. Shells contain other poisonous gases.

It is the experience of experienced medical officers and consultants that the milder cases entirely recover, that the ill effects of the gases are almost entirely prevented by the use of a good pattern of respirator.

Experiments on animals show that atropine given in the earliest stages prevents the œdema, but when once œdema has set in the maintenance of the patient's strength and aid in removing the frothy fluid with the use of Am. Carbonate gives the best result.

#### THE SCHAEFER METHOD OF RESUSCITATION FROM DROWNING AND ELECTRIC SHOCK.

The patient is laid on his stomach, arms extended from his body beyond his head, face turned to one side so that the mouth and nose do not touch the ground. This position causes the tongue to fall forward of its own weight and so prevents its falling back into the air passages. Turning the head to one side prevents the face coming into contact with mud or water during the operation. This position also facilitates the removal from the mouth of foreign bodies, such as tobacco, chewing gum, false teeth, etc., and favors the expulsion of mucus, blood, vomitus, serum, or any liquid that may be in the air passages.

The operator kneels, straddles one or both of the patient's thighs, and faces his head. Locating the lowest rib, the operator, with his thumbs nearly parallel to his fingers, places his hands so that the little finger curls over the twelfth rib. If the hands are on the pelvic bones, the object of the work is defeated; hence the bones of the pelvis are first located in order to avoid them. The hand must be free from the pelvis and resting on the lowest rib. By operating on the bare back it is easier to locate the lower ribs and avoid the pelvis. The nearer the ends of the ribs the hands are placed without sliding off the better. The hands are thus removed from the spine, the fingers being nearly out of sight.

The fingers help some, but the chief pressure is exerted by the heels (thenar and hypothenar eminences) of the hands, with the weight coming straight from the shoulders. It is a waste of energy to bend the arms at the elbows and shove in from the sides, because the muscles of the back are stronger than the muscles of the arms.

The operator's arms are held straight, and his weight is brought from his shoulders by bringing his body and shoulders forward. This weight is gradually increased until at the end of the three seconds of vertical pressure upon the lower ribs of the patient the force is felt to be heavy enough to compress the parts; then the weight is suddenly removed; if there is danger of not returning the hands to the right position again they can remain lightly in place, but it is usually better to remove the hands entirely. If the operator is light, and the patient is heavy, the operator can utilize over 80 per cent. of his weight by raising his knees from the ground, and supporting himself entirely on his toes and the heels of his hands—the latter properly placed on the ends of the floating ribs of the patient. In this manner he can work as effectively as a heavy man.

A light feather or a piece of absorbent cotton drawn out thin and held near the nose by some one will indicate by its movements whether or not there is a current of air going and coming with each forced expiration and spontaneous inspiration.

The rate of operation is 12 to 15 times per minute, and should not exceed this; the lungs must be thoroughly emptied by three seconds of pressure, then refilling takes care of itself. Pressure and release of pressure—one complete respiration—occupies about five seconds. If the operator is alone he can



be guided in each act by his own deep, regular respiration, or by counting, or by his watch lying by his side; if comrades are present, he can be advised by them.

The duration of the efforts at artificial respiration should ordinarily exceed an hour; indefinitely longer if there are any evidences of returning animation, by way of breathing, speaking or movements. There are liable to be evidences of life within twenty-five minutes in patients who will recover from electric shock, but where there is doubt the patient should have the benefit of the doubt. In drowning, especially, recoveries are on record after two hours or more of unconsciousness; hence, the Schaefer method, being easy of operation, is more likely to be persisted in.

Aromatic spirits of ammonia may be poured on a handkerchief and held continuously within three inches of the face and nose; if other ammonia preparations are used they should be diluted or held farther away. Try it on your own nose first.

When the operator is a heavy man, it is necessary to caution him not to bring force too violently upon the ribs, as one of them might be broken.

Do not attempt to give liquids of any kind to the patient while unconscious. Apply warm blankets and hot-water bottles as soon as they can be obtained.

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### Exophthalmic Goitre and Tuberculosis

Bialokur thinks that there is a causal connection between tuberculosis and Basedow's disease. In 10 per cent. of his tuberculous patients he found symptoms of exophthalmic goitre; predominately in women, one man to ten women. Symptoms of excessive thyroid functioning may occur in the very incipient stage of tuberculosis. They seem independent of the gravity of the case, the age, sex, etc. In fact, he thinks that symptoms of Basedow's disease may indicate the existence of a latent tuberculous infection. When tuberculous symptoms are pronounced, the symptoms of Basedow's disease change the clinical picture, producing a thyroid-tuberculosis combination. Successful treatment of the exophthalmic goitre symptoms may improve the pulmonary process.—*J. A. M. A.*

**DERMOID CYST FREE IN ABDOMEN DURING PREGNANCY**

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BY JASPER HALPENNY, M.D., WINNIPEG.

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Mrs. Mary Black was admitted to the Winnipeg General Hospital, April 1st, 1915. She was a nurse in Londonderry from the age of 22 to 32, during which time she was not off duty one day.

She was then married, and her first confinement was a difficult one—instruments having been used. The second confinement was easier.

In November, 1913, she had a miscarriage at three months. She was again pregnant four and a half months before she was admitted to the hospital.

On March 28th, 1915, at 9.30 a.m., she was working about her house as usual, when she had a sharp, sudden pain in the right side, which made her feel sick and faint. She got to the bed, but fell on her knees, and had to be assisted into bed. She was given some whiskey, which she vomited. The bowels moved. After a little the pain became less with occasional exacerbations. She remained home for three days, during which she took no food, but water in small quantities. At the time of admission her temperature was 100.4-5, and her pulse 72. The white blood count was 12,000. There was extreme tenderness over the right lower quadrant of the abdomen, over the outer and upper side of the four-and-a-half months' pregnant uterus. A deep breath made her start with pains. The abdomen was distended. There was no appreciable tenderness over any part of the abdomen except as above stated. there was no pathological mass to be felt in the tender area. A diagnosis of acute appendicitis was made. Operation was done immediately. The incision was made along the border of the right rectus and a cloudy fluid was found on opening the peritoneum. Without having disturbed any intra-abdominal tissues a semi-gangrenous looking mass, two-thirds the size of one's fist, presented at the upper angle of the wound. This mass was entirely free. The appendix was chronically adherent, and was removed because it was easy to do so. The rest of the abdomen was left unexplored, and the wound closed without drainage. The patient made a smooth recovery, and left the hospital on the 14th day.

The tumor proved to be a dermoid cyst, which had so twisted its pedicle that it became entirely detached. There were practically no shreds at the former site of the pedicle.

6 East Gate.

**PRESIDENT'S ADDRESS—ACADEMY OF MEDICINE,  
TORONTO\***

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BY DR. W. H. B. AIKINS.

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**THE MEDICAL PROFESSION AND THE WAR—THE CANCER  
PROBLEM.**

At a time like the present when such momentous events are happening day by day on the Continent of Europe, and the destinies of the nations of the world are trembling in the balance, most of us find it extremely difficult to concentrate our minds on any subject which is not directly or indirectly connected with the war. This is not to be wondered at when we consider that it is by far the most terrible conflict recorded in history, the result of which will influence the future course of events throughout the whole of the civilized world. The state of things in Europe has been recently very vividly brought home to us in Canada, owing to the fact that so many of us have already lost those near and dear to us on the battlefield or in that great tragedy of the sea, the sinking of the "Lusitania," but we rejoice to know that our soldiers have worthily upheld the traditions of our race, and that this country has reason to be proud of her sons.

In no previous war has the medical profession, not only of the British Islands, but also of the Overseas Dominions, played such an important part, and there was everywhere a prompt response to the demand of the army for civilian surgeons to supplement the work of those belonging to the service. Many of the senior students in the various medical schools also volunteered for employment as dressers.

As you all know the response from those of our profession in Toronto has been most gratifying. The Army Medical Service of the First Contingent took many of the Fellows, and with the subsequent contingents, Clearing Hospital and University of Toronto Base Hospital, there has been an increasing depletion of our ranks. Sixty-one Fellows of the Academy of Medicine are now on active service. The medical student body of Toronto University has not been behind in their response to the call. Of the undergraduates in medicine, six officers and eighty-eight men have gone, while there are 252 men serving from the graduate body of the Faculty of Medicine.

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\* Address before the Academy of Medicine, Toronto, October 5th, 1915.



You will remember that very soon after the beginning of the war the Fellows of the Academy of Medicine pledged themselves, as a patriotic duty, to undertake without charge the professional care of the needy dependents of any men serving with the allied armies during the war now going on; and you have this evening listened to the report of the Patriotic Relief Committee, and can realize how well and truly that pledge has been implemented by the Fellows of the Academy. From the report of the Hospital Supplies Committee you have also learned how very active the Fellows have been in this matter.

From all parts of the country came offers from private individuals of accommodation for invalid soldiers and sailors, and of large country houses to be used as convalescent homes for the sick and wounded. Australia, New Zealand, South Africa, India, and our own Dominion of Canada, have given splendid and magnificent assistance in hospital equipment and personnel, and in the sermon preached by the Archbishop of Canterbury at St. Paul's Cathedral on August 4th, the anniversary of the declaration of war, he says that, "the temper of the whole of the British Empire has been worthily reflected by medicine. A firm resolution to endure to the end and a hope for the victory of the right are displayed in the hearty co-operation between our citizens in all parts of the world in the medical conduct of the war." The United States has also done much to help in the treatment of our wounded soldiers, and has made generous contributions in the shape of hospital equipment and personnel.

The war can scarcely fail to have a more or less arresting effect upon medical progress in some directions, in view of the fact that in all the countries concerned so many men engaged in medical investigation and research have, at any rate for the time being, been called away from their work. The interruption to the exchange of scientific data is also a serious obstacle to progress. Many medical meetings which were to have been held during the present year, have been postponed. The next International Medical Congress which was arranged to meet in Munich in 1917, has suspended the work of organization, and in the *Deutsche Medizinische Wochenschrift* there is an editorial to the effect that it is probable that the feelings of hatred excited by the war will not have died out by that time, so that it would be difficult to welcome representatives of the countries now fighting Germany with any degree of cordiality.

In fact Germany seems to be preparing for isolation from the external medical world, and it is announced that the German scientists have commenced a campaign against all medical words of English, French or Russian origin, and that a committee is to be formed for the purpose of framing a purely German medical nomenclature.

This isolation from the rest of the world may not be an unmixed evil, if the opinion expressed by Dr. Greely, in the *Boston Medical and Surgical Journal*, of September 10th, 1914, is correct, namely, that in Germany the scientific side of medicine is over-developed, whilst the human side is greatly neglected.

The sublime ignorance of the facts in regard to the origin of the war shown in the extraordinary manifesto issued towards the end of last year by the German Intellectuals, including such names as the late Prof. Ehrlich, some of the assertions in which are in direct opposition to the statements contained in the German White Book, cannot fail to discredit German science. Can we ever trust the German scientists again?

Soon after the beginning of the war we began to realize how dependent we were upon Germany for the supply of certain drugs, in the manufacture of which she had acquired a monopoly. These included a large number of extremely valuable drugs, which had displaced many of the older remedies, such as the whole range of synthetic drugs, analgesics, antipyretics, alkaloids, salicylates and potash salts. The fact that Germany possessed a monopoly in the manufacture of aniline dyes has caused a very considerable inconvenience. The manufacture of many of these products had originated in Britain, but had afterwards been applied by German manufacturers. One of the chief difficulties in manufacturing them ourselves was that hitherto Germany had had an exclusive supply of the raw material required. There has since been considerable progress in the manufacture of the products formerly supplied by Germany, but there are still many difficulties to overcome before this industry is established on a satisfactory basis.

It is sometimes asked if war offers any compensations for the harm it undoubtedly does in hindering the advance of science? Much has already been learnt in regard to the proper treatment of septic wounds, and as to efficacy of inoculation in the prevention of the diseases which have in previous wars caused more deaths than the actual battles themselves. The vigorous efforts taken in Serbia by the British and American doc-

tors have been so successful that typhus, relapsing fever, cholera and smallpox are now almost stamped out, and so far the health of our troops in France, in England and at home has been extraordinarily good.

At the end of the first year of the war it may be said that the value of the medical work in the Army cannot be too highly estimated, and the practical absence of epidemic diseases and efficient sanitary organization has meant a gain of innumerable lives to the allied armies. The heroism of the troops in battle has been equalled by that shown in the hospitals, and the wounded have been attended with courage, assiduity and success, often under the most trying circumstances. Very warm tributes have been paid to the courage and professional efficacy of the Medical Corps by the highest military and political authorities. They all agree that the medical men have rendered most heroic services, and that their courage and devotion is beyond all praise.

I quote the following paragraph from the *Daily Mail*, which appeared soon after the battle of Neuve Chapelle: "A bright page in the story of British heroism in the battle of Neuve Chapelle is the conduct of the doctors. As always they distinguished themselves by their fearlessness under fire and their gallantry. Their losses were heavy for they exposed themselves without thought of danger."

Amongst the results of the war which are of special interest to us in Ontario is the establishment of medical reciprocity between Ontario and Great Britain. This became necessary on account of the necessity for those holding the license of the College of Physicians and Surgeons of Ontario to go with the Canadian contingents to Great Britain and France, and therefore to work under the War Office. The Council of the College passed the enabling legislation in December last, the Lieutenant-Governor subsequently giving the Royal Assent. In the *Lancet* of September 4th, a notice appears from the Registrar General of the Council of Medical Education and Registration of the United Kingdom, containing the following paragraph: "That any person holding the license or membership of the College of Physicians and Surgeons of Ontario, granted after examination in Medicine, Surgery and Midwifery, together with a license to practise in that province, shall be entitled to register in the Colonial list of the Medical Register, providing he satisfied the Registrar regarding the other particulars set forth in Part II. of the Medical Act, 1886. Degrees in Medi-



cine granted by the Queen's University, the Western University and the University of Toronto may so be registered as additional titles provided they are registered in Ontario."

It has been assumed by some that this war is likely to result in an enormous amount of more or less permanent nervous and mental suffering and incapacitation amongst the soldiers, but although there is no doubt that a certain number of them become unnerved by the horrors of the battlefield, time has shown that a large proportion of these recover after rest and suitable treatment. In an address recently given by Lord Bryce, he states that the effect of the fighting on thousands of our men has been to sober them, to stir their deepest thoughts, and inspire them with an urgent desire for a more idealistic basis of living, and he holds that the spectacles of millions of men abandoning home, family, ambition and money, and laying down life for a principle is so glorious as to transfigure the pictures of mangled bodies and human beings gasping in the dark struggle against death. He believes that one of the eventual results of the war will be the great decrease in the amount of mental instability, and that people will return to a simpler life, partly from choice and partly from necessity.

Another fact of importance which we may here mention is that neurasthenia and other neurotic conditions are apparently becoming much less common, in spite of the anxiety and strain resulting from the war. This is not difficult to understand, as the experience of most people who have been accustomed to the treatment of nervous conditions indicates that it is not so much the great tragedies of life which are apt to upset the equilibrium of the nervous system but small daily worries persisting for long periods of time, and above all lack of occupation and interest in life.

This war is certainly affecting the Fellows from a pecuniary point of view in that many people who have been accustomed to employ physicians and to pay the ordinary fees can no longer afford to do so. The extent to which the war has affected the medical profession in this respect varies in individual cases, but there certainly seems to be no doubt that consultants and specialists are suffering more than the general practitioners, who in a few cases are benefiting more or less, due to so many of their colleagues having taken up military work of some kind.

Now as to the progress of the Academy since the last regular meeting was held, I may say that 27 new men have been elected, so that counting in the 61 who are at present overseas

the total number of Resident Fellows is 404. Non-Resident Fellows, 42; Life Fellows, 5; and Honorary Fellows, 4, making a total of 455. Ten additional names will be submitted at the next Council meeting for election, and it is our earnest hope that before the close of this Academy year the total fellowship may come up to the 500 mark by the adhesion of a number of very able men in Toronto who have signified their desire to join with us.

### THE CANCER PROBLEM.

Until comparatively recently it was believed that cancer occurred only in human beings, but the researches which have been carried out have demonstrated the fallacy of the opinion, and it now appears to be definitely established that both benign and malignant growths may develop in any multicellular organism. In the Report of the Imperial Cancer Research Fund, Bashford and Murray state that the results of their investigations indicate that all the histological types of cancer have been recognized both in domesticated and wild animals, although in the latter it is comparatively rare. As regards the domestic animals, it is most common in dogs, but it has also been observed in horses, cows, donkeys and cats, and in a few isolated cases has been observed in pigs, sheep and goats. In domestic birds, such as hens and geese, it is fairly common, and the same applies to fish, more especially when they are artificially bred. It is much more rare in wild animals and birds, although there is evidence to show that they are by no means exempt from it.

As regards man, there is no doubt that it is one of the most terrible diseases which afflict the human race, and that it is responsible for a very large proportion of the deaths from disease in general. Whilst it is unwise to over-estimate the value of statistics, there is no doubt whatever that the endeavors which have been made during the last few years to obtain more accurate statistics in regard to cancer and its mortality have given most valuable information in regard to its geographical distribution, the comparative frequency with which it affects the different organs of the body, and the apparent influence of various occupations on its incidence. The results of these researches indicate that the view which formerly prevailed that cancer affected only civilized races, and that those living under primitive conditions of life and in certain climates were exempt from it, has no foundation in fact, and that it is prevalent to a varying extent amongst all races of the world and in all climates.

As regards the mortality of the disease, a study of the English statistics shows an alarming increase in the fatalities from it during the last few decades. In 1840 the reports show that one person in 5,646 of the total population of the country died from malignant disease; there was one death from it in every 129 deaths recorded, and there were 117 deaths due to cancer per million of the population. On comparing these figures with those for the year 1906 we find that one person in 1,131 of the total population died from malignant disease; that there was one death from it in every seventeen deaths recorded, and that there were 885 deaths due to cancer per million of the population.

On the Continent of America we also see a corresponding increase in the death rate from cancer. In New York the death rate from malignant disease in 1913 was 82 per 100,000 of the total population, whereas for the previous five years the average was 79 per 100,000; in Boston it was 118 per 100,000, as compared with an average for the previous five years of 110 per 100,000; in Pittsburg, 79 per 100,000, as compared with 70 per 100,000 for the previous five years; in Baltimore, 105 per 100,000, as compared with 94 per 100,000 for the previous five years; in Chicago, 86 per 100,000, as compared with 81 per 100,000 for the previous five years; in Philadelphia, 95 per 100,000, as compared with 88 per 100,000 for the previous five years; and in St. Louis, 95 per 100,000, as compared with an average of 85 per 100,000 for the previous five years. The mortality statistics for the whole of the United States give in 1900 a death rate from cancer of 63 per 100,000 of the total population; in 1904, of 70.2 per 100,000; in 1909, of 73.8 per 100,000; and in 1912, of 77 per 100,000.

As regards Canada, we find that in our own Province of Ontario the annual death rate from cancer has increased from 1.253 in 1904 to 1.806 in 1913. This last figure is a fraction above four times as many as those from typhoid fever in the same year, and very nearly as many as those from pulmonary tuberculosis, which claimed 1,955 victims in 1913.

Werner,<sup>1</sup> who has made an investigation of the vital statistics of Baden, states that during the last twenty-five years the yearly number of deaths from cancer has increased by about one-third in that part of the country. Bertillon,<sup>2</sup> who has made a similar investigation in regard to France and most of the other countries of Europe, states that it has doubled in frequency during the last thirty years.



These figures are certainly alarming, and it is, therefore, not to be wondered at that a considerable amount of attention has recently been devoted to the problem of the most effectual means of diminishing the incidence and mortality of cancer. At the same time it should be borne in mind that there are certain factors which tend to modify this increase in mortality, and indeed some writers go so far as to say that in their opinion it is only apparent and not real. These modifying factors include the imperfections in the systems of vital statistics which are employed in different countries, and the recent improvements in methods of diagnosis of cancer and other disease, which renders it probable that an accurate diagnosis is made of malignant disease much more frequently than was formerly the case. Further, it is a generally recognized fact that cancer is more apt to develop in people over forty years of age than in younger individuals, and as the average duration of life has increased, it follows that a larger proportion of people now live to attain this age. But even when due allowance is made for scientific progress and the changes in modern conditions of life there seems to be no doubt that the mortality from cancer is steadily increasing, and that if this increase cannot be checked its ravages in the future will be terrible to contemplate.

The problem of cancer is, therefore, one of vital importance to humanity in general, both from the point of view of prevention and treatment. Societies have been formed in practically all civilized countries in the world with the object of carrying out scientific investigations to determine its aetiology, but so far, although the hypotheses advanced in this connection have been manifold, very little light has been thrown upon it. The quest for its causative agent is analogous to that which was persevered in for so many years without result in the case of tuberculosis, and was at length rewarded by the discovery of the tubercle bacillus. We still remain more or less in the dark with regard to cancer, but there is no doubt that some day in the near or distant future this problem, which is now occupying the attention of so many of our greatest scientists, will also be solved.

Contrary to many popular ideas the investigations of the Imperial Cancer Research Fund have shown that cancer is prevalent amongst both civilized and uncivilized people, amongst all races of mankind and in all climates. It has often been assumed that certain countries, such as India, China and Japan, are comparatively immune to malignant disease, but the results of

recent researches indicate that it is by no means so rare in these countries as has generally been supposed. Indeed, the Japanese statistics for the four years from 1899 to 1903 give the average death from it as 0.49 per 1,000, which is higher than that of some of the European countries. Werner and Bertillon have published some interesting statistics with regard to the geographical distribution of cancer. Werner found that its prevalence appeared to be independent of climatic, geological or similar conditions, and that areas in which it was very common and comparatively rare were frequently situated close to one another. In some instances it was rare in districts in which the proportion of the inhabitants over fifty years of age was small, and common in those in which there was a comparatively large proportion of individuals of advanced age. Bertillon found that it was much more common in the north than in the south of France, and that in the area of greatest mortality from this disease, which is situated around Paris, the mortality from it is from three to four times as great as in other parts of the country. The statistics of deaths from carcinoma in other European countries show that the mortality from it in the Mediterranean countries in the year 1906 to 1907 was less than half that in the others. While it is probable that some definite peculiarities are at the basis of the differences in the geographical distribution of cancer, they have so far not been discovered.

I do not propose here to discuss the many theories which have been advanced from time to time to account for the origin of cancer, none of which affords a satisfactory explanation of the nature of malignant disease. The fact, however, that we are up to the present ignorant of its actual cause does not prevent our attacking the problem from the standpoint of prevention and cure. The researches which have been carried out have definitely shown that there are certain predisposing causes, the most important of which is chronic irritation of various kinds, dependent upon mechanical, physical, thermal, chemical or other irritants. In some exceptional cases which have been reported the irritation has not been chronic, but has been the result of a single trauma. In addition to local predisposing causes there appear to be certain constitutional peculiarities which lower the resistance of the organism to this particular disease. Experimental work in mice and other animals has shown definite constitutional susceptibility to cancer, both of the natural and acquired type. People who follow certain occupations are also known to be especially liable to the develop-

ment of malignant disease. The fact that we now know that such predisposing causes are influential in setting up cancer indicates the desirability of keeping a careful watch for them, and more especially of removing all sources of chronic irritation, where it exists, and of all benign growths which are being subjected to irritation.

There seems, therefore, to be no doubt that chronic irritation, sometimes of long duration, followed by what may be termed a precancerous condition, does in a very large proportion of cases precede the development of cancer. This is most clearly seen in cancer of the skin and mucous membranes, a very striking instance being the development of cancer of the tongue on the basis of leucoplakia. Von Brunn<sup>3</sup> was able to determine previous chronic irritation in 328 of 368 cases of superficial cancer which came under his observation. Lesions of the skin from which cancer may develop include warts, certain varieties of pigmented moles, chronic ulcers, sinuses and old scars from burns. With regard to the internal organs the connection between chronic irritation and cancer is not so easily demonstrated, and there is considerable difference of opinion as to the influence in this connection of ulcer of the stomach, gall stones and urinary calculi.

As has already been said, the increased incidence of cancer affects mainly the higher age periods, and in the majority of cases it develops in individuals over forty years of age. It is said that after the age of forty one woman of every seven, and one man of every eleven, dies from cancer. The age of the patient is, therefore, of importance in making a diagnosis of malignant disease, and symptoms, which in people of an earlier age, may possibly be of slight significance, increase in importance as age advances. For example, vague and indefinite symptoms of gastric distress in a man of forty-five should not be ascribed to mere functional derangement without the most careful and thorough examination, with a view to excluding organic disease. Cancer below the age of thirty-five is rare, but it has been met with exceptionally in much younger individuals.

It is a well-known fact that certain organs of the body are more liable to develop cancer than others, this predisposition of definite tissues varying according to sex. Thus in men the following are attacked in order of frequency:—stomach, liver and gall-bladder, rectum, intestines, œsophagus, tongue, jaw, mouth, lip and breast. In women the order of frequency is as follows:—uterus, breast, stomach, liver and gall-bladder, intes-



tines, rectum, œsophagus, bladder and urethra, face, tongue, jaw, mouth and lip. Cancer of the uterus and that of the female breast form by far the largest percentage of all cancers. The increase in the incidence of cancer as a whole, however, during recent years applies chiefly to cancer of the stomach and rectum, whilst that of the female genital organs has remained practically stationary, and is even said by some writers to be diminishing in frequency.

The investigations which have been carried out do not indicate that environment has much influence upon the incidence of cancer. The one exception to this general rule is that in certain occupations there appears to be a tendency of special parts of the body to the development of precancerous or cancerous conditions, owing to exposure to chronic irritation. This applies especially to workers in coal-tar, soot, petroleum and aniline dyes. The returns of the Registrar-General for England and Wales show that the greatest mortality from cancer occurs in chimney-sweeps.

It is, therefore, beyond all doubt that malignant disease is on the increase. What is, then, the duty of the medical profession? Scores of workers are seeking the etiology of cancer. Others are devoting themselves to the discovery of some sure method of diagnosing the disease early enough to make our present treatment more potent. Still another band of scientists is searching out new remedies and methods of treatment, or improvements of those we already have. Till one or all of these groups is successful, the great body of the medical profession must be content, *first*, to educate the public as to the early symptoms of the disease, so that the patient will present himself to the physician while the growth is removable; and, *second*, to use every known means to diagnose carcinoma when these patients come to him.

We must look forward to the time, not far distant, when the laity are going to take as active a part in the campaign against cancer as they now do in the treatment and prevention of tuberculosis. I trust that when the public do become fully aroused to the dangers of this disease, the medical profession may be in a position to lead them up to the sanctuary of cure.

#### REFERENCES.

1. Werner: *Munchener Medizinische Wochenschrift*, 1911, LVIII, p. 2325.
2. Bertillon: *La Presse Medicale*, 1911, No. 38, p. 385.
3. Von Brunn: Cited by Gaylor; *Jour. Amer. Med. Assoc.*, 1915, Vol. LXIV. 968.

134 Bloor Street West.

## Editorials.

### THE TORONTO ACADEMY OF MEDICINE

The Toronto Academy of Medicine has now entered into its ninth year of existence. The first medical society of Toronto was organized something like forty years ago, being known as the Toronto Medical Society. After some years of active work it ceased to exist, and two new societies were formed, known as the Clinical and Pathological Societies. In the year 1895 the Ontario Medical Library was organized. This latter body was ambitious and desired to accomplish much good for the Province of Ontario. Among those who took a very lively interest in the success of the Library Association was Sir William Osler, and he was one of the first to suggest that the different Toronto societies should amalgamate and form one strong institution, which would work in the interest of the medical profession of Ontario. As a consequence the Academy of Medicine was incorporated, March 8th, 1907.

Although the two local societies of Toronto, the Clinical and Pathological, assisted in the organization of the new body, it should be considered that the Academy of Medicine was really successor to the Ontario Medical Library Association. According to the constitution the Board of Trustees of the Academy consisted of three members, the first being Drs. J. F. W. Ross, R. A. Reeve and N. A. Powell.

The opening meeting for 1915-16 was held in the Mining Building (University) on the evening of October 5th, the President, Dr. W. H. B. Aikins, being in the chair. Dr. W. P. Manton, of Detroit,

delivered an able and instructive address on "Obstetrics Among the Ancient Romans." An interesting letter from Sir William Osler was read. All were pleased to know that Sir William still takes a keen interest in the welfare of the Toronto Academy of Medicine. In addition to his letter he presented to the Academy two rare old books: Rhaze's "Liber ad almansorem," Venice, 1490; Jenner's "Inquiry into the Causes and Effects of the Variolæ Vaccinæ."

The success of this Academy has been phenomenal and has, we think, surpassed the hopes of its original incorporators. It is now generally known that this success far exceeds anything we have before known in Toronto.

Another interesting event of this year's opening meeting was the election of Dr. Algernon Temple as an honorary life member of the Academy.

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### THE ONTARIO MEDICAL ASSOCIATION

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The officers of the Ontario Medical Association are looking into the history of that organization. They find that it was organized in 1880. In October of that year a meeting of the profession in Toronto was held. It was decided then to make inquiries in all parts of the Province of Ontario respecting the desirability of establishing a provincial medical society. A committee was appointed composed of Doctors Workman, Covernton, J. E. Graham, J. H. Burns, Adam Wright and J. E. White. The following circular was sent to all the local societies, and also to a number of representative physicians in various parts of the province.



"It is hardly necessary to speak of the value and importance of such a society from a scientific point of view, as that will immediately be recognized by all: apart from that it will be calculated to advance mutual interest, increase unity and harmony, stimulate a free interchange of thought, develop increased desires for a knowledge of professional literature to the present day, promote useful and kindly feeling and minimize that undesirable distrust and exclusiveness so commonly attributed to the profession, besides affording fuller opportunity than at present exists in having some place of meeting convenient to the majority.

"It is well known that the State Medical Societies of the neighboring republic have contributed largely to the interest and success attending the meetings of the American Medical Association. In like manner it is reasonable to assume that a vigorous Provincial Society would greatly assist the Dominion Medical Association.

"At a meeting of the profession of Toronto on October 7th, the matter was relegated to a committee who will be pleased to have an expression of opinion from your society in regard to its subject, as well as to receive any suggestions it may make.

"In view of the importance and great advantages to be derived from the best step, it would be desirable to bring the matter before your Society at once.

(Sgd.) "C. W. COVERNTON.

"J. E. WHITE."

The answers returned were all favorable with one exception. One physician from Ottawa feared that it might injure the Dominion Society. The Counties of Huron, Bruce, Wentworth, Peterborough, Northumberland, Frontenac were strongly in favor of the proposal. The Hamilton Medical Society showed great interest in the matter and worked very cordially with the committee in Toronto. A committee from that body, composed of Doctors MacDonald, MacKelcan, Mullen, Rosebrugh and Woolverton conferred with the Toronto committee, February 22, 1881. At this meeting, which was held in Toronto, it was decided to hold the first meeting of the new Association in Toronto, June 1st, 1881.

### "BROKEN" SOLDIERS

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"Canadienne," in *Saturday Night*, gives a very interesting description of "Dunedin," the home of Mrs. Crerar, Hamilton, which has been converted into a Home, "where broken soldiers are mended." As announced in our last issue, the formal opening of this institution took place September 15th. Mrs. Crerar is the Lady Superintendent; Mrs. Austin Evans, Whitby, is the Resident Nurse. Among the others who have volunteered their services as nurses are Miss Harvey (the golfer), Miss (Lieut.) Mabel Taylor, Mrs. Snow, and the Misses Cronyn, Rousseaux and Findlay. Mrs. Evans was a graduate nurse before her marriage to Doctor Evans, of Whitby, who is now on active service in the R.A.M.C., Egypt. Of the Crerar family, the eldest son, Capt. E. D. Crerar, is with the "Fighting Eleventh" in Flanders. The second son, Lieut. A. Crerar, is in the Royal Canadian Dragoons, and the sixteen-year-old son, Malcolm Crerar, is in the Royal Military College, Kingston; while Mrs. Crerar's elder daughter, Lady Beck, is one of the most active patriotic workers in our own loyal London.

EDITORIAL NOTES

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**The Commission on Medicine**

Hon. Justice Frank Hodgins, of the Supreme Court of Ontario, has been appointed a Commissioner to inquire into all matters connected with the practice of Medicine in the Province of Ontario. This will include an examination of the status of what are known as "regular practitioners," and also osteopaths, optometrists, opticians, chiropractors, Christian scientists, manotherapentists, etc.

The "irregulars" have made some headway during the last few years, and are striving to take the place to a large extent of what used to be known as general practitioners. As some of our universities, and particularly that of Toronto, are failing to properly educate "general practitioners," we should not be surprised at the success of the "irregulars."

Although the public have a very high respect for specialists and scientists, yet a large proportion of our citizens still like the family doctor.

Those in control of medical education should wake up to the requirements of the situation and immediately discard the Germanic methods.

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**The Medical Council of Canada**

The following have passed the examinations held recently in Montreal: S. M. Anelstine, Kingston; A. R. Bayne, Sherbrooke; J. L. Clarke, Edmonton; A. H. Campbell, Spragge, Ont.; A. D. Campbell, Toronto; J. Carmichael, Collingwood, Ont.; K. A. Denholm, Blenheim, Ont.; D. A. Macleod, Ottawa; B. C. Patterson, Hallville, Ont.; S. O. Rogers, Toronto; G. E. Thomson, Kingsmill, Ont.; W. A. Vanderburg, Hamilton; J. G. Wright, Kingston.



## NEWS ITEMS

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The many friends of Dr. R. S. Brett have heard with much pleasure that he has been appointed Lieutenant-Governor of Alberta.

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The Saskatchewan Medical Association cancelled its last meeting, which was to have been held July 27th, and has decided not to hold another meeting until after the close of the war.

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Lady Sibil Grey, daughter of the former Governor-General of Canada, and Lady Muriel Paget have gone to Russia with a complete staff and supplies to organize a hospital in Petrograd.

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Dr. Jas. Douglas, of New York, has been appointed Chancellor of Queen's University in the place of Sir Sandford Fleming, deceased. Doctor Douglas, in accepting the appointment, sent with his letter a cheque for \$100,000 for the new Library Building of the University.

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### Degrees Conferred

The following degrees were conferred by Queen's University, September 29th: M.D.C.M.—A. B. Earl, M.B., McDonald's Corners; J. H. Kemp, M.B., Rochester, N.Y.; F. L. Leacock, M.B., Merrickville. Degree of M.B.—E. J. Brennan, North Bay; N. L. Burnett, Springfield, Mass.; W. R. Grant, Sintaluta, Sask.; A. W. Trefry, B.A., Arcadia, N.S.

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### Sick Children's Hospital

On the morning of April 22nd last the Lakeside Home at Lighthouse Point, Toronto Island, was destroyed by fire. Fortunately, while the main building was destroyed, the nurses' dining-hall, the kitchen, boiler-room and three pavilions escaped.

These were fitted up in May, and on June 4th one hundred children were transferred from the institution on College Street to the Island, and after spending the summer there they were brought back on October 1st.

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### Ontario Medical Council

We are glad to learn from the announcement of the Ontario Medical Council recently issued that a new Register of Medical Practitioners in the Province will soon be issued. We may say that the red ink appeal is considered to be a remarkable production, but it has been suggested that it might be well to also issue a black ink explanation telling the profession in five or six lines exactly what the Council wishes the profession to do in the way of assisting towards the preparation of a new Register.

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### Treatment of Pyorrhoea Alveolaris

Gosline (*Boston Med. and Surg. Jour.*). According to their severity, cases of pyorrhoea alveolaris are classified as those with spongy gums, very spongy gums and spongy gums with loose teeth. The treatment advised consists of the administration of emetine hydrochlorine, 1-6 grain, twice a day cubcutaneously, and the application of the wine of ipecac to the gums twice a day for one week, followed by a second week's treatment, in which the gums were swabbed with wine of ipecac, and an injection of emetine hydrochloride, 1-3 grain, was administered once a day. Of 14 cases with spongy gums, 11 showed marked improvement, 2 moderate improvement, and one slight improvement. Of the 12 cases of very spongy gums, those treated locally showed only moderate or slight improvement, while those treated with emetine in addition to the local treatment showed 87.5 per cent. marked improvement. The group with loose teeth and spongy gums showed 78.6 per cent. marked improvement, but in no case with loose teeth did the teeth become firmly set once more.—*Int. Med. Journal.*

**WAR ITEMS**

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Dr. A. M. Fisher, of Woodstock, is now in Egypt.

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Dr. V. E. Henderson, Toronto, is the M.O.H. for the alien prisoners' detention camp at Kapuskasing, Ont.

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Dr. D. B. Neely, M.P. (Capt.), of Humboldt, Sask., is Medical Officer for the 10th Canadian Mounted Rifles.

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According to reports from the Aegean Sea, Doctor Roberts, of Hamilton, and others (not all unfortunately) in the same unit are well.

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News came early in October that in a camp of 70,000 Austrian prisoners of war in Serbia 35,000 had died from wounds and typhus fever.

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It was reported October 10th that Dr. (Lieut.) E. B. Crompton, of Brantford, who left with No. 4 General Hospital Unit, University of Toronto, has been promoted to a captaincy.

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Dr. W. A. Henderson joined the R.A.M.C. in England some time in the latter part of September. He was appointed physician-in-chief to the hospital ship which has since gone to the Dardanelles.

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A cablegram from Dr. Walter McKeown announced that his son, Lieut. Woods McKeown (Woody), of the 23rd Royal Field Artillery, England, was sound and well after taking a prominent part in Sir John French's "big drive."

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We learn with much regret, through a cablegram received October 13th, that Dr. (Col.) H. R. Casgrain, of Windsor, who was in charge of the hospital on the Island of Lemnos, was seriously ill from dysentery, and was removed to Alexandria. At the same time came another alarming report that Doctor (Capt.) Wishart, son of Dr. Gibb Wishart, of Toronto, was seriously ill at Alexandria. A later report said Wishart was improving.



### **Canadian Convalescent Home in France**

We learn from Mrs. Christopher Robinson, of Toronto, that the Canadian Convalescent Home in Dieppe is continuing to do admirable work. Mrs. Douglas is still Superintendent, and has for her assistants Miss Tait and Miss Burnham, who helped to establish the Home. Miss Murphy, a professional nurse from the staff of Miss Margaret Lash's Hospital, Toronto, is also in the Home.

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### **University of Toronto Base Hospital**

Many reports have come during the last few months respecting the impatience of the Toronto University Hospital Unit. Most of its members wanted active work somewhat different to that assigned them at Shorncliffe and other places in England. At one time they expected to replace the McGill unit in France or Flanders, and at another time they expected to go to the Dardanelles or Egypt, or both. That would have meant a division of the unit, which for many reasons was not considered advisable. Consequently three similar units were sent to the Mediterranean, of which two are now stationed in the Island of Lemnos close to Gallipoli, and the third in Egypt. On the 12th of October, Colonel Roberts, the head of the unit, was ordered to prepare for departure at once to the Mediterranean. It was expected and hoped by the doctors of the unit that they would be sent to Serbia.

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### **Canadian Hospitals**

Sir Robert Borden, in his address delivered in Toronto, Sept. 27, paid a tribute to the Canadian Red Cross Society and the Canadian War Contingents Association for what they were doing for Great Britain. He praised especially the Red Cross Society's Hospital at Cliveden, and said he left that institution more than ever impressed with the work done by women in Canada, which had made the establishment of such a hospital possible. He then described his trip to France. He went across the Channel in a British destroyer, and landed in Boulogne. After leaving this city he visited four Canadian and one British hospital and also planted

maple seeds on the graves of some valiant soldiers. It was, he said, a great honor to do so.

He also said there were at that time in Great Britain, France, the Dardanelles and Egypt sixteen Canadian hospitals—eight in Great Britain, five in France, two in the Dardanelles, and one in Egypt. On the various staffs there were 2,400 men, and on the nursing staffs 525 devoted women. He had visited hospitals in Great Britain and France, and he knew that no hospitals were better equipped, and that in no hospitals had the wounded received better care than in the hospitals which have been organized by the people of Canada.

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### The Red Cross and St. John's Ambulance

Surgeon-General Ryerson and Colonel Noel Marshall, of Toronto, have furnished the following list, which shows the work accomplished during the last year:

5,000 surgeons, nurses, stretcher bearers, hospital orderlies, motor drivers, etc., sent out.

1,000 motor ambulances, cars, lorries, cycles, repair wagons and motor soup kitchens at work.

\$1,000,000 is required for their upkeep for twelve months.

Six motor launches, steam picket-boat and lighter sent to Dardanelles and Persian Gulf.

Four hospital trains running in France and Belgium.

Fifteen hospitals established in France, Malta and Egypt.

Six rest stations in France for wounded men en route.

Two convalescent homes in Egypt.

\$700,000 worth of hospital and medical stores sent to France, Belgium, Malta, Egypt, East Africa, West Africa, Northern Rhodesia, China, Persian Gulf and Dardanelles; also \$1,100,000 worth of gifts for the wounded, including 1,850,000 articles of clothing distributed.

Twelve store depots for hospital comforts, etc., established in France, Malta, Egypt, and the Dardanelles.

1,200 packets of food sent each week to prisoners of war in Germany.

12,123 items of information about missing and wounded men and prisoners of war collected and communicated to relatives.

Registration and care of graves in France and Flanders.

For our gallant allies.—Four hospitals and one hundred motor ambulances for the French army; hospital and motor ambulances for Italy and Russia; hospitals and staff for Serbia and Montenegro.

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### **Doctors Selected for the R.A.M.C.**

On October 9th Dr. (Lt.-Col.) Marlow selected forty officers for the Royal Army Medical Corps in England. These doctors were ordered to prepare to leave at once. The list includes Drs. C. C. McIntyre, A. R. Riddell, S. A. Walker, S. M. Dale, P. J. Harris and G. A. McLarty, House Surgeons of Toronto General Hospital; Dr. E. H. McVicar, St. Michael's Hospital; Dr. H. R. Young, Western Hospital; Dr. E. E. Wilson, Muskoka Hospital; Drs. A. D. Moffitt and J. Cunningham, Niagara Camp; Drs. P. P. Rogers, V. E. Cartwright, G. Carlton and F. L. Thompson, Toronto; Dr. D. A. Warren, Hamilton; Drs. R. Home, T. R. Phipps and A. M. Murray, Toronto; Dr. W. A. McLeod, Erindale; Dr. H. C. Sutton, Port Credit; Dr. J. W. Wheeler, Cornwall; Dr. J. W. Nixon, Georgetown; Dr. A. S. Wallace, Thessalon; Drs. E. Bryson, J. J. Hurley and W. S. Grimshaw, Toronto; Dr. H. C. Moyle, Burlington; Dr. W. B. Seaton, Clifford; Dr. M. D. Kyle, Fergus; Drs. W. E. Dean, M. M. Ferguson and W. W. Conise, Toronto; Dr. G. Cooper, Charlton; Dr. M. H. Embury, Allandale; Drs. D. M. Kilgour and A. M. Robb, Toronto, and Dr. F. A. Ross, Barrie.

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### **Doctor Bruce's Report**

Dr. H. A. Bruce (Lieut.-Col.) since his return from the front has told us many interesting things. He referred especially to the good work which is being done by Doctor Nasmith, formerly Director of the Laboratories in the City of Toronto. He sent to the British headquarters the first report on the gases used by the Germans at St. Julien. He expressed his opinion as to the nature of the gases, which has since proved to be correct, and at the same time suggested the means for counteracting their effect. His suggestions were adopted by the War Office. The work which Doctor Nasmith and his associates—Dr. Arthur Ellis and Doctor Rankin, of Calgary—are doing is recognized at the British headquarters as invaluable. Most of



our readers are probably aware that Arthur Ellis is a son of Professor Ellis, Dean of the School of Practical Science of the University of Toronto.

Among the hospitals there are over five thousand beds in England and about five thousand in France. There are no hospitals in France superior to the Canadians'. Among those doing admirable work is Dr. (Major) J. T. Clarke, formerly of Bloor Street, Toronto, who was at No. 2 Canadian General Hospital at Treport, France. Doctor Bruce thinks that No. 2 Canadian Stationary Hospital, where Doctors Penticost, Wood, McEwen and Elliott are doing most of the work, is the most complete hospital, and has the finest situation of any in France. He also visited No. 3, McGill Hospital at Canvers, and No. 1, near Etaples, each of which has 1,040 beds. Among those with the 2nd Contingent he saw were Dr. (Col.) J. T. Fotheringham, of Toronto, and Doctor (Major) Merritt, of St. Catharines. At Belleuil he saw Doctor (Col.) Foster, who is now a D.M.S. of the Canadian Army Corps, and Dr. (Lt.-Col.) W. D. McPherson, of Toronto, who has charge of the Second Division Ambulance. With Doctor McPherson are the following from Toronto: Dr. (Major) E. B. Hardy and Drs. (Capts.) P. G. Brown, Jeffs and Geoffrey, and also Dr. (Capt.) J. J. Fraser, of Walkerton. At Nieppe he saw Doctor (Col.) Ross, M.P.P., of Kingston, who is now an A.D.M.S. of the First Division. At Dieppe he saw Dr. (Major) John Amyot, who is now head of the Canadian Sanitary Section of the First Canadian Division, and Mr. (Capt.) Geo. Blackstock, of Toronto, one of Toronto University's best footballers.

Doctor Bruce thinks the war will last for another year at least. Before leaving England he spent a day with the Hon. Doctor Pyne, who is superintending the erection of the Ontario Hospital at Orpington. This hospital will contain 1,040 beds, and will probably be finished early in December.

## Personals

Dr. D. W. Montgomery, of San Francisco, visited Toronto to attend the funeral of his mother, October 9th.

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Dr. R. W. Bruce Smith, of Toronto, who has been ill since last spring, is now reported to be recovering rapidly.

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Dr. C. A. Coon, who was Medical Superintendent of the Kingston General Hospital, has resigned, and is going into general practice in Kingston.

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Dr. Jas. T. Campbell, formerly of Whitby, has been practising in Chicago since he graduated from Toronto University in 1889. He recently paid a visit of a few days to Toronto, Oshawa and Whitby. He says that notwithstanding the large number of Germans who live in the City of Chicago, the great mass of its citizens sympathize very strongly with the Allies.

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Dr. J. Arthur Sutherland, who since he graduated in 1896 has been practising in British Columbia and Alaska, visited Toronto early in October. He left for the front on October 25th, expecting to go into the service of the French Medical Corps.

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The Hon. Doctor Pyne is still in England superintending the erection of the Ontario Hospital at Orpington. The property selected is a thirty-acre estate with a large residence which will be used for administration purposes. Around this building will be erected a number of "huts" similar to those at Cliveden. It is expected that Doctor Pyne will remain in England until the end of the year.

## Book Reviews

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*A Manual of the Practice of Medicine.* By A. A. STEVENS, A.M., M.D., Professor of Therapeutics and Clinical Medicine in the Woman's Medical College of Pennsylvania, Lecturer on Medicine in the University of Pennsylvania. Tenth edition, revised. 12mo. of 629 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1915. Flexible leather, \$2.50 net. Sole Canadian agents. The J. F. Hartz Co., Limited, Toronto.

Students for several generations have found this manual excellent for rapid review. A tenth edition has brought everything up to date, without changing the plan of the book, which is by no means a quiz compend. The size and the flexible cover make it easy to carry in the pocket.

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*The Care of the Baby.* By J. P. CROZER GRIFFITH, M.D., Professor of Diseases of Children in the University of Pennsylvania. Sixth edition, thoroughly revised; 12mo of 463 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$1.50 net. Sole Canadian agents: The J. F. Hartz Co., Ltd., Toronto.

Infant mortality is still one of the pressing problems of public health administration. Anything, therefore, that by educative methods will tend to diminish the mortality rate is deserving of recognition by the medical profession. A book such as the one before us in the proper hands will do an immense amount of good. It is satisfactory to note the increasing number of mothers who are asking their physicians to recommend a book on the care of their children.

Doctor Griffith's book has already proved its worth by the number of editions that have been exhausted. It deals with the babe from pre-natal life, takes up the normal infant, its growth, its food, sleep, clothes, toilet and sicknesses, presenting the subject in a way easily to be understood by any intelligent woman. We are sure the success so well deserved in the past will attend the present sixth edition of this most useful manual.



*Pathological Technique.* A practical manual for workers in Pathological Histology and Bacteriology, including directions for the performance of autopsies and for clinical diagnosis by laboratory methods. BY FRANK BURR MALLORY, A.M., M.D., Medical School, Associate Professor of Pathology, Harvard University; Pathologist to Boston City Hospital, and JAMES HOMER WRIGHT, A.M., M.D., S.D., Pathologist to Massachusetts General Hospital; Assistant Professor of Pathology, Harvard University Medical Hospital. Sixth edition, revised and enlarged, with 174 illustrations. Philadelphia and London: W. B. Saunders, Company, 1915.

That this book should so soon require another edition speaks well for its present popularity.

Like its predecessor it aims at the demonstration of the technique to be followed in practically all branches of pathology. It is well and clearly written, and the text is well supported by the large number of interesting and instructive plates.

The book is well suited for either the general practitioner, or as a reference for the advanced laboratory worker.

There is an increase in the number of pages, due entirely to the introduction of new material.

The Saunders Company have enabled the authors to present their work in a most attractive and durable form.

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*Pathogenic Microorganisms.* A practical manual for students, physicians and health officers. BY WILLIAM HALLOCK PARK, M.D., Professor of Bacteriology and Hygiene, University and Bellevue Hospital Medical College, and Director of the Bureau of Laboratories of the Department of Health, New York City, and ANNA W. WILLIAMS, M.D., Assistant Director of the Bureau of Laboratories; Consulting Pathologist to the New York Infirmary for Women and Children. Fifth edition, enlarged and thoroughly revised, with 210 engravings and 9 full-page plates. Lea & Febiger, New York and Philadelphia, 1914.

The popularity of this manual as a text-book of bacteriology is shown by the appearance of a new fifth edition. In it not only has the text been brought up to date with recent observa-

tions, but there has been a rearrangement of material designed to render the book more convenient. In Part I a general consideration of bacteriology and protozoology is taken up, together with methods of technique. Part II deals in detail with the individual organisms, while in Part III the practical application of the study to public health and other services is emphasized.

Changes will be noticed in the chapters on Immunity, and Complement Fixation receives a chapter to itself. Other chapters where considerable revision has taken place are those on the streptococcus, pneumococcus, diphtheria bacillus, tetanus bacillus, the bacillus of pertussis, the moulds, and rabies.

In this ever increasing sphere of scientific investigation it is a difficult matter to present the subject in a limited compass, but that the authors have admirably succeeded will be readily seen by a study of this very excellent manual.

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### Iodine Poisoning

Merlet (*Jour. de Méd. et de Chir.*, 1915, No. 3). Attempts at suicide by means of the tincture of iodine are becoming more and more frequent. There seems to be great variation in the dose treated by different individuals, death having followed the ingestion of 6 grm. of the tincture, while 10 grm. have been taken without ill effects, and 60 grm. merely followed by an obstinate gastro-enteritis.

A variety of antidotes have been advocated, but none compares in efficacy with sodium hypochlorite. It may be given, as a 10 per cent. solution, in almost any dose with no untoward action except that of a purgative. More than an ounce need not, however, be given, and this amount is without ill effects. A great advantage of the drug is that it may be obtained almost anywhere, in an emergency, owing to its general use in photography. It is also by far the best reagent for removing iodine stains from the skin.—*Int. Med. Journal.*

## Selections.

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### Trench Diarrhoea

Remlinger and Dumas (*Rev. d'hygiène et de police sanitaire*) say that the term "trench diarrhoea" covers some very different conditions: infections of typhoid and paratyphoid bacilli, muco-membranous enteritis, diarrhoea connected with improper action of the stomach. In most cases it is simply a more or less acute form of dysentery—a complaint from which no troops in the field are exempt. Diarrhoea and dysentery have prevailed with particular severity among the troops in the Argonne. They appeared at the end of the hot weather, when hostilities began in that district, and were but little checked by the cold of winter. Of the several hundred cases, some were dyspeptics of long standing, others were cases of mucomembranous enteritis, easily produced by the coarse army diet, consisting largely of meat, independently of any stay in the trenches. Another was a case of paratyphoid. In most of the cases, however, the patient had never suffered from gastric or intestinal trouble. Soon after he entered the trenches, where he felt the fatigue and cold intensely, the diarrhoea appeared, beginning with four or five soft yellowish stools in the twenty-four hours. Gradually the number increased, especially at night; the faeces became more liquid and clear, and greenish instead of yellow. At the same time colicky pains preceded defæcation, which produced no feeling of relief. Tenesmus supervened, and the number of stools increased to twelve or fifteen, some of them greasy or bloody, and two-thirds of them at least occurring during the night. There was never any fever, but slight constitutional disturbance in the way of loss of strength and appetite, slight frontal headache, and sometimes nausea and vomiting. The only treatment required was to keep the patient warm and quiet in bed, when a few days effected a complete cure in the majority of cases. In a few cases serious, but rarely fatal, dysentery occurred. In the fatal cases the autopsy showed lesions of the large intestine and hypertrophy of the mesenteric ganglia. The small intestine was healthy, and Peyer's patches were neither ulcerated nor hypertrophied. The spleen was hard and shrunken, thus excluding all action by Eberth's bacillus or para-typhoid bacilli. Microscopic examination of the stools showed the features characteristic of dysentery, and animal parasites, such as the eggs of ankylosto-



mata, were never found. The causes of trench diarrhœa are said to be exposure to cold and wet, and to the want of warm food. In the case of the large numbers of men unaccustomed to much meat, the fact that the rations consist almost exclusively of beef was certainly a contributory cause. Few of the patients attributed their malady to water. Although a few admitted they had drunk water from shell holes or from sources of doubtful purity, most of them said that the cold enabled them to a large extent to do without drinking anything but wine, tea, or coffee. Now, all the causes above mentioned must be regarded as predisposing only. The presence of a special bacillus is essential, but it seems to have little effect alone, as it has been found in the fæces of men who have not been exposed to the predisposing conditions, and who have remained in perfect health. The bacillus seems to be derived from the trench mud contaminated with fæcal matter. This gets on to the boots, thence on to the hands and the food. In the summer dust and flies also carry the infection. Moreover the infection, even if it does not occur in the trenches, may take place in the villages hard by where the men go to rest, after five or ten days in the trenches, for about an equal period. The result is that the villages are crowded, and it is impossible to secure proper sanitary precautions. Further, most of the food for the men in the trenches is cooked in these villages, so that the bacilli may also be carried to the trenches from the kitchens. What is now called "trench diarrhœa" has always been rife in the Argonne, and presented no difference of character in the summer of 1914 from what it has been in previous summers.

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#### **Haemorrhagic Nephritis due to Novocaine-Adrenalin**

Lenschow (*Norsk Magazin for Laegevidenskaben*) records the case of a man, aged 21, who had never undergone a serious illness. On September 10th, 1914, he was operated on for inguinal hernia on the right side. A general anæsthetic was dispensed with, and a subcutaneous, subaponeurotic injection of novocaine-adrenalin was given. A 1 per cent. stock solution of novocaine was boiled, and then adrenalin was added, and altogether 70 c.cm. of the novocaine solution and 14 minims of adrenalin were used. The dosage of the former was 70 cg. and of the latter 0.7 mg. The operation was satisfactorily completed and the wound healed by first intention. On the day following the operation the patient complained of dull pain in both lumbar regions. The urine was blood-stained, and a heavy

brown-red deposit was found under the microscope to consist of red cells and a great quantity of hyaline and blood cell casts. The kidneys were not palpable and there was no rise of temperature. The hæmaturia gradually diminished, and when the patient was discharged, sixteen days after the operation, the macroscopic appearance of the urine was normal, and it contained no albumin. There were, however, still a few red cells to be seen under the microscope, but no casts. The author points out that there has apparently been no previous record of nephritis following an injection of novocaine-adrenalin. The cases of poisoning by this preparation have been distinguished exclusively by symptoms referable to the vascular and central nervous systems. Subcutaneous and subfocal injections of such a small quantity and of such a dilute solution of novocaine-adrenalin as given in the author's case have not hitherto caused any toxic symptoms. It may be suggested that the hæmaturia was independent of the anæsthetic and that the association of the two was purely accidental. The author dismisses this hypothesis, and considers that the rapid development of the hæmaturia after the operation and the absence of fever was indicative of a toxic effect. But he does not know which of the components of the novocaine-adrenalin was to blame; he suggests that in the future the urine should be examined when large injections of novocaine-adrenalin have been given.—*British Medical Journal*.

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### **Congenital Defects of the Anus and Rectum**

Brenner (*Surgery, Gynecology and Obstetrics*) publishes a report, with comments, of 61 cases of atresia of the anus and rectum under his observation. The varieties were as follows: Atresia ani simplex 27 cases, 17 reported as in males, 6 reported as in females, and 4 where sex was not reported; atresia of the anus and vulval outlet 10 females; atresia ani with complete occlusion by a membranous diaphragm 3 cases, 2 male and 1 female; atresia ani with perineal outlet 2, 1 male and 1 female; atresia ani with scrotal outlet 2 males; atresia recti 12, 9 in males, 1 in female, 2 sex unreported; atresia recti with vaginal outlet 3 females; atresia recti with urethral outlet 2, 1 male and 1 female. The operative treatment is also tabulated. Perineoplasty (mostly proctoplasties) 29, of which 19 proved successful, 6 died of the operation, 4 died after more or less perfect recovery, the surgical mortality being 24 per cent. Inguinal colostomy 11 cases, 2 successful, 4 died of the operation, 5 later, sur-

gical mortality 66.6 per cent.; perineal dissection for fistulous openings 10 cases, 9 successful, 1 died after recovery, the surgical mortality being *nil*. Lastly, in two cases coeliotomy and proctoplasty were combined, one dying of the operation. Brenner observes that this procedure, a novel and unique technique, promises good results in selected cases. He notes that his statistics demonstrate that perineal dissection for fistulous openings gives excellent results, and is a safe procedure. The 29 perineoplasties for anal or ano-rectal obstruction show a mortality of 24 per cent., which is, after all, much lower than before the era of aseptic surgery. Inguinal colostomy, though advised by some authorities as the procedure *ab initio*, is attended with high mortality, 66 per cent., and therefore must be condemned excepting as a last resource.—*British Medical Journal*.

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### The Attitude of Dutch Scientists to German Kultur

The *Deutsche Medizinische Wochenschrift* for June 17th devotes a good deal of space to a plaintive discussion of the unsympathetic attitude adopted by Dutch medical men to their German colleagues. Doctor Seydel writes that Dr. G. van Rijnberk, editor of the leading Dutch medical journal, *Tijdschrift*, has drawn unkind comparisons between the scientific achievements of many poorly equipped Italian laboratories and the princely establishments of many German "Bier-universities." This contemptuous reference to the convivial tastes of the German scientists is not, in the opinion of Doctor Seydel, worthy of the serious attention of his countrymen, but he deduces from other remarks by the Dutch editor the existence of a widespread movement in the ranks of the Dutch medical profession against Germany. It appears that in the past much of the work of Dutch scientists has been published in German, where it has been submerged in the flood of gigantic tomes and series which for several decades have poured from the German press, so that its educative value has been lost. Foreign professors in Holland are usually Germans, and these imported teachers are in the habit of lecturing in their own tongue. Dutch textbooks are scarce, having been to a great extent supplanted by German works. The Dutchman seeking post-graduate teaching generally goes to Germany, which is also the chief foreign source of instruments and medical appliances. There is a powerful movement afoot in Holland to counteract these Germanic influences, to nationalize Dutch science, and to cultivate greater



self-reliance and independence. Holland does not mean to rob herself of the fruits of scientific research elsewhere, but it is her ambition, in addition to fostering science at home, to exchange the one-sided yoke of German kultur for a wider and more international scientific intercourse with all her neighbors. Referring to the value of Germany's scientific achievements as compared with those of her neighbors, Dr. van Rijnerk is said by Doctor Seydel to have written: "Still to-day, the great ideas in science germinate repeatedly in France and England, and even in Italy and the Netherlands, whence they are transported to German soil, where they bloom into the perfect plant ready for export." Dr. J. Schwalbe, editor of the *Deutsche Medizinische Wochenschrift*, deploras this attitude of Dutch scientists to Germany, and he interprets the Dutch propaganda not only as a nationalist movement, but also as a movement prompted by actual hostility to Germany. Dr. H. Treub, professor of gynecology in Amsterdam, who has protested against the appointment of Germans to Dutch professorships, comes in for severe censure for poking fun at Prussianism. It is, in the German editor's opinion, deplorable that Professor Treub should symbolize Prussia in 1813, 1870, 1914, 1915, and 1920 by a series of casts of deformed fetal heads, the Prussia of 1920 being represented as an anencephalic monster!—*British Medical Journal*.

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### Digitalis Dosage

In the development of the various branches of medicine the department of therapeutics has proceeded more slowly than most of the others, especially in the matter of drug treatment. The activity of the laboratory has added a few valuable remedies to our armamentarium, but much of the research on this subject has tended rather to disprove the value of many drugs, both old and new. The number of really invaluable drugs is certainly very small, but it includes digitalis. Digitalis has been studied at length by many investigators and its mode of action has been fairly definitely established. Of its dosage less is satisfactorily known. Different samples of the leaf and different preparations vary enormously in their potency and much effort has been devoted to the problem of finding a means of standardization. Of the standards proposed, the "cat unit" of Hatcher is becoming accepted as the most reliable for translation into dosage for man. The cat unit, it may be explained,

is "that amount of the drug which is just sufficient to kill one kilogram of cat when slowly and continuously injected into the vein. This is expressed in terms of milligrams of the drug, whether it be a pure principle or the leaf."

Following this method of standardization Eggleston (*Archives Int. Med.*, 1915, xvi, 1) has determined, in a series of cardiac cases, the amount of the drug which has proved necessary to produce "full therapeutic or minor toxic action." He emphasizes the desirability of using a preparation which has been standardized by the cat method, but states that if such is not obtainable it is safe to proceed on the basis that a high-grade leaf has an average cat unit strength of 100 mg. He concludes that "the average therapeutic dose of digitalis, given orally to man in the form of the tincture or infusion, is 0.146 cat unit or about 0.146 c.c. of an average high-grade tincture per pound of body weight." Likewise 0.066 cat unit, or 0.023 mg. per pound is the average therapeutic dose of crystalline digitoxin. In his cases the majority did not vary 15 per cent. above or below this average. The chief drawbacks of digitalis therapy have been first, that it developed its action rather slowly and second, that the stomach not infrequently became intolerant to the drug before the desired therapeutic result could be attained.

Eggleston proposes the following method of administration which he claims will largely overcome these disadvantages. The dose for the patient is estimated on the basis of one-seventh of a cubic centimeter of a high grade tincture for each pound of the body weight. In estimating this dose it is necessary to estimate and disregard the proportion of the patient's weight, which is due to œdema as well as that due to fat in the very obese. One-third to one-half of this dose is given at once and followed, in four to six hours, by one-quarter to one-third the dose. The remainder is to be given in smaller amounts at intervals of from four to six hours. If, after the total dose has been given, the patient fails to show the full therapeutic effect, administration of small amounts should be continued until such effect appears. Given in this way, the full effects of the drug may be manifest in from twelve to thirty-six hours in the majority of cases. Eggleston says that the large amounts of digitalis given early do not cause gastric irritation since he has given from 5 to 15 c.c. repeatedly and has never seen the least disturbance as a result. Indeed, when it is realized that the vomiting of digitalis is a result of its central action it will

seem probable that large amounts may be given in this way before the onset of nausea. It is, of course, understood that this method is for cases of acute cardiac decompensation and is not designed to supplant the so-called chronic digitalis therapy which is followed in the less urgent cases. He states that both digitalis and digitoxin are probably rapidly and fairly uniformly absorbed from the alimentary canal of man, but digitalis is less completely absorbed than is digitoxin. Strophanthus, strophanthin, ouabain, and true digitalin, on the other hand, are poorly and irregularly absorbed when given by mouth and are unsuited for therapeutic use in this way.—*New York Medical Record*.

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### Hibernation and the Pituitary Body

“Not only has the phenomenon of sleep offered a problem which has not been solved to the satisfaction of physiologists, but still less satisfactory have been the explanations accounting for the prolonged dormant periods to which certain species of animals are subject, and of which the hibernation of winter latitudes and aestivation of tropical and arid regions are the most notable examples.” In these words Professor Harvey Cushing and Dr. Emil Goetsch introduce the report of some observations they have made on this matter in the *Journal of Experimental Medicine* (1915, vol. xxii.). The prevailing view is that the lethargy is due to low external temperature and diminished food supply, but experimental confirmation is not very convincing. Observations on the cells in the nervous system and upon the respiratory quotient also fail to throw light on the cause of hibernation. It is important to remember that besides the lethargy there is a preliminary storage of fat, and during the somnolence a retarded tissue combustion, as shown by lowered body temperature, bradycardia, lowered blood pressure, relative peristaltic inactivity, insensitiveness to painful or emotional stimuli, and slowed respiration. It is known that over-activity of certain glands of internal secretion is capable of accelerating tissue metabolism. It is suggested that a seasonal physiological inactivity on the part of these glandular structures may well account for the phenomenon of hibernation. An animal in which the habit of hibernation exists is the North American marmot or “wood chuck,” and the ductless glands of seven of these animals were examined during and after the hibernating period. It was found that though more or less



definite evidences of a pluriglandular insufficiency are apparent when the waking is contrasted with the dormant state, nevertheless the most striking histological changes in the latter state occur in the anterior lobe of the pituitary gland. There is a loss of the characteristic cellular topography, a shrinkage of both the nuclear and protoplasmic substance of the cells, and a complete loss of the typical differential staining qualities of the granular content to acid and basic dyes. There was also some suggestive evidence to indicate that when the animal emerges from the dormant state there is marked activity of the reproductive organs, and this is possibly due to the renewed or re-activated pars anterior. Clinical observation of the effect of pituitary gland upon the body shows that with lessened activity of the gland many symptoms—drowsiness, sub-normal temperature, impotence—arise which are strikingly comparable to the hibernating state. Man may even in his normal state show a condition comparable to hibernation; in certain parts of Russia, the peasants, during the winter scarcity of food, pass weeks at a time in a somnolent state, rousing themselves once a day for a scant meal. Seasonal variation in the activity of the ductless glands is not limited to the pituitary gland, as it is particularly evidenced in the glands directly concerned with reproduction—glands which have been shown to have a very close functional inter-relationship with the pituitary body. Whilst changes in this body are probably responsible for the phenomena observed, these changes are themselves due to extra-corporeal factors relating to food-supply.—*The Lancet*.

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### Chronic Inversion of Uterus: Abdominal Operation

Hedley (*Journ. Obstet. and Gyn. of the British Empire*) reports two cases where inversion occurred during labor and was not reduced for several months. In both he opened the abdominal cavity. A ring was then seen in the normal position of the cervix at its attachment to the vaginal walls, large enough to admit the tip of the forefinger. The Fallopian tubes and broad ligaments were drawn into the ring. Manual attempts proving of no avail in the first case, the ring was divided posteriorly in the middle line with scissors, so that there was a vertical incision involving the posterior wall of the uterus, the vaginal portion of the cervix, and the posterior vaginal wall. The assistant was immediately able to reduce the inversion by very slight pressure from the vagina. The wound was closed with catgut sutures

from above downwards. Ventral fixation of the fundus was considered advisable. In the second case Hedley, having opened the abdominal cavity, was able to replace the uterus quite easily by pressing on it through the bladder walls. The drawbacks of making a vaginal examination when the peritoneal cavity was open were thus avoided. The fundus was fixed to the parietes with catgut. Perfect recovery followed both operations. Hedley maintains that the abdominal operation is, as a rule, the proper treatment for chronic inversion. The repositor is slow, tedious, and painful in its action, and the patients are already anæmic, whilst stretching and cutting the cervix from below is only possible in a minority of cases.—*British Medical Journal*.

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### Appendicitis—The Ochsner Method.

BY EVERETT S. HICKS, M.D.

A visit to the Ochsner clinic in Chicago convinced me that it is a mistake to be rash in operating, at sight, on many cases and that at times the statement "that the operation was too late" might be qualified by the addition "or the time for operation badly chosen."

In reporting two hundred consecutive cases of appendicitis without a death the points of interest are:

1. Sixty-four cases were not treated surgically during the acute attack.

2. One hundred and thirty-six were operative cases. Of these forty-nine were acute cases operated on as soon as they came under observation—twelve were pus cases of whom eight had an abscess drained only, and four had both abscess drainage and removal of appendix, while eighty-four were of the chronic type or were operated after the acute attack had well subsided.

3. Principles of treatment. The medical treatment, if it can be called such, was prohibition of food, physic, and generally of water. Lavage at times. Rest in bed. Mild heat locally. All cases seen in the first forty-eight hours were operated on at once, if willing; a few were operated on on the third day, but cases from the fourth to ninth days were, especially if very ill, treated medically and a safer time waited for.

When one states that the cases were divided between country practice, private hospital, and city hospital work the Ochsner treatment can be commended as a safe and practical outline for guidance even under such varying conditions.—*C. M. A. J.*

## Miscellaneous

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### Gastrin

The discovery by Bayliss and Starling, in 1902, of secretin, a specific chemical stimulant to pancreatic secretion, has been the starting point of much valuable investigation and not a little fruitful speculation in physiologic science. It furnished an example of the stimulation of one organ by a chemical product formed in another, and this led Starling to propose the general term "hormone" to designate substances which act thus at long distance by being transported in the circulation. Soon afterward Edkins, in 1906, expressed the belief in the existence of a comparable gastric secretagogue which he designated gastric secretin, or gastrin. This product was believed to be formed by the contact of certain substances with the pyloric mucous membrane, and to be carried, after absorption into the blood stream, to the gastric glands, stimulating them to secretion.

The main experimental facts on which these conclusions were based have since been substantiated by other workers. As yet no one has succeeded in preparing either secretin or gastrin in a form approaching chemical purity, and much of the controversy attached to the questions raised by these important discoveries has centred in the real specificity of the exciting substances isolated thus far. Tissue extracts are in general likely to furnish products capable of lowering arterial blood pressure. Accordingly, vasodilation has been held responsible by investigators here and there for the resulting secretory activity. If a common pressure-lowering tissue constituent were the sole factor involved in the striking phenomenon of an increased flow of gastric juice observed after injection of so-called gastrin extracts, one would expect a rather widespread distribution of the exciting agent. This appears not to be the case. According to the latest reports in this field, the gastrin is not confined to one part of the stomach, as Edkins and others believed, but is uniformly distributed throughout the stomach mucosa. Gastrin is found in much smaller concentrations in the duodenum, and its presence can just be demonstrated in the œsophagus. Preparations of other parts of the body—pancreas, submaxillary glands, smooth and striated muscle—are without special effect on gastric secretion.

Keeton and Koch believe that gastrin causes a true gastric flow rather than a simple vasomotor response. This is a logical



conclusion from the fact that an intramuscular dose of gastrin which causes a fall in blood pressure lasting over four or five minutes may excite a secretion of a duration of an hour and a half, with a maximum flow between thirty and forty-five minutes following the injection. These investigators further conclude that gastrin is of a chemical nature different from that of pancreatic secretin, and that it is a specific substance. Lest the therapist become unduly impatient, it may be added that immediately practical possibilities arising out of these findings have not yet been developed.—*J.A.M.A.*

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### The Decline of Clinical Teaching

We fear that in the noise and press made by laboratory tests and novelties, an art of great importance to physicians is likely to be passed over entirely. We refer to the art of auscultation and percussion, and to the decline of teaching in this respect. Students, for example, of laboratory science, in four years become so saturated with specialism that they are practically incurable. They are crammed with tabloid doses of the various experiments and tests. From such teaching, in which auscultation and percussion are ignored for the vicious influence of fleeting experiment, there is apparently no escape. We think a student will never be able to put down skillfully the diagnosis of any disease unless he is fully acquainted with the art of interpreting the physical signs. At present students seem to hope that laboratory calculations are some wonderful exact science that they can suddenly acquire. They are highly conscious of the exactness of their blood counts and stomach analyses, and pathetically assured that this often unrelated possession renders the study of real clinical phenomena obsolete or needless.

The art of auscultation and percussion is only superficially studied; it will soon be lost, for there will be nobody to teach it. The fact is patent. Skill in this art is rare among physicians, perhaps only less rare than skill in action, which we attribute to the finest surgeons. Auscultation and percussion, which occupied the generation of Auenbrugger and Laennec so effectively, have been studied with small variation by later physicians. When applied by Stokes, Latham, Piorry, and Skoda, these arts were used in their incorrupt and original form. Unfortunately they call up to-day ideas of slipshod improvising and arrangement such as Sahli's in his monstrous work, *Untersuchungsmethoden*. There is really no reason why this elabora-

Children, as soon as their molars appear, should be systematically taught to masticate their food—not bolt it, as is too often the case—thus avoiding digestive troubles later, and insuring sound teeth.

To secure the best and most prompt results, with children, any salutary or otherwise desirable habit is most easily inculcated, if made pleasant to the child. Parents and teachers realize this fact.

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tion should be, for a modern writer, Gee, was able to write concisely and comprehensively on the same subject. The plethoric book of Sahli has been imitated by what are now called "internists." They have no qualms about space or time or the value of their opinions. The clearness, the almost classical precision of Latham do not appeal to them in the least. We may safely say that the following passage from his *Lectures on the Diseases of the Heart* is a test of knowledge both of phenomena and man. Of the sounds of bronchial breathing, he says: "The sounds can only be learned by the practice of listening to them. It is useless to describe them. They are simple perceptions of sense, which no words can make plainer than they are, when the ear has once become familiar with them. I must leave you to be your own self-instructors, and recommend you to be constantly practising auscultation for the purpose." When practice fails, the teacher must be there to train the pupil's senses, for this skill depends upon the knowledge of the instructor; in our schools he is usually young, without much experience. This almost incredible neglect is productive of the worst mischief in medical education; the professors eschew the long, laborious route of teaching, at the end of which lies knowledge of diagnosis, and troop out as inventors of new signs and tests. These dry bones they describe in books, in which they are all for the cloudy distinction, the prolix statement, trying to create equivalents for the terms of Laennec.—*New York Medical Journal*.

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### The Pallid School Girl

In view of the modern methods of education, which force the scholar at top speed, it is not to be wondered at that the strenuous courses of study prescribed for the adolescent girl more than frequently result in a general breakdown of both health and spirits. Each winter the physician is consulted in such cases and almost always finds the patient anæmic, nervous and more or less devitalized. In most instances a rest of a week or two, together with an efficient tonic, enables the patient to take up her school work again with renewed energy. Pepto-Mangan (Gude) is just the hæmatinic needed, as it acts promptly to increase the red cells and hæmoglobin, and to tone up the organism generally. It is particularly suitable for young girls, because it never induces or increases constipation.



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**Turpentine as a Haemostatic**

(G. Grey Turner: *Lancet*, July 31, 1915.)

The author calls attention to the value of turpentine as a hæmostatic, particularly in secondary hæmorrhage. Several illustrative cases are given, in which its use has been demonstrated in wounds incurred in the present war. It is useless to apply turpentine until the area to be treated has been thoroughly freed of blood-clot and débris, and although it is not always necessary to use an anæsthetic, it is usually wiser to do so. The cavity is simply packed with strips of lint or gauze which has been soaked in turpentine and squeezed dry. The action of the turpentine on the living tissues gives rise to a slimy pus, which greatly facilitates removal of the gauze in the course of forty-eight hours. Blistering of the skin may occur, but not if care be exercised in the application. The author is more than doubtful of the value of turpentine as a hæmostatic when given by the mouth, as he believes actual contact with the bleeding surface to be essential.

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**Bacterial Vaccine Therapy**

The treatment of infectious diseases with preparations derived from corresponding micro-organisms long since passed the experimental stage, and bacterial vaccines may be said to occupy an assured place in therapeutics. These vaccines, as is doubtless well known to most physicians, are suspensions, in physiologic salt solution, of killed bacteria. An important effect of their administration is to raise the destructive power of the patient's leucocytes against the specific living invaders. Injected into the human organism, bacterial vaccines have an effect similar to that produced on the horse by the introduction of toxins or killed cultures: they cause active immunity. In other words, the administration of a dose of bacterial vaccine stimulates the patient to produce an additional supply of antibodies, thus enabling him to resist the disease.

Bacterial vaccines have several advantages over the ordinary forms of medication. They are determinate or specific in the respective infections in which they are indicated. Their employment relieves the patient of the necessity of frequent "dosing." Being administered by the physician, or under his direct supervision, they enable him wholly to control his cases.

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especially when wielded by the Physician, in Pneumonia, for example, to spread on previously verified and properly heated



"About five per cent of all physicians still adhere to the theory that pneumonia, being a so-called self limited disease, admits of no active treatment, but requires only good nursing and patient watchfulness. The other ninety-five per cent, out of their individual and collective experiences, are convinced that, with prompt treatment of the right kind, pneumonia can be often greatly lessened in its severity, shortened in its course, or (as some affirm) actually aborted. We are of the opinion that about seventy-five per cent of the physicians believe there is no single or similar remedial measure which equals Antiphlogistine in its prompt effectiveness in the treatment of this disease."

(From Pneumonia Booklet sent on request.)



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Parke, Davis & Co.'s bacterial vaccines are scientifically prepared, and precise therapeutic results may be confidently expected from their administration.

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### **Anti-rabic Inoculations at the Pasteur Institute**

Viala (*Annales de l'Institut Pasteur*), gives a summary of the anti-rabic inoculations performed at the Pasteur Institute in 1914. The number of persons treated was 373. In only two years since the foundation of the Institute was a smaller number treated—viz., 341 in 1911, and 330 in 1913. As in 1910, 1912, and 1913, no death occurred among those treated. Of the 373 persons treated in 1914, in 68 cases rabies was proved experimentally to be present in the biting animal; in 102 cases rabies was stated to be present on veterinary examination; and in 203 rabies was suspected. One patient, not counted among those treated, died of hydrophobia, which appeared in the course of treatment. This was a girl, æt. 12, who was bitten severely on the lip, the forehead and the thumb on October 29th; none of the wounds were cauterized; she was treated at the Institute from November 5th to the 10th; symptoms of the disease developed on the 9th, and she died on the 12th. The same dog that bit her also bit two other persons, who, after treatment at the Institute, remained well.

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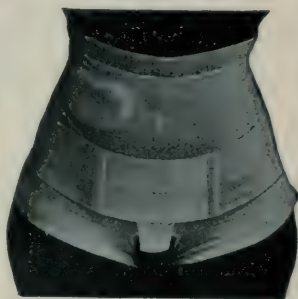
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Some of the doubts regarding that much-discussed preparation, spirit of nitrous ether, are cleared up in a communication to the Science Committee of the British Medical Association by Dr. C. R. Marshall and Miss E. Gilchrist (*British Med. Jour.*, 24th July, 1915). A number of samples were examined, made by the various recognized methods: the B.P., the London Pharmacopœia, and the German Pharmacopœia; these three formulæ being of different types. The investigators conclude that the therapeutic action of the spirit—notably its action as a vasodilator—depends upon the ethyl nitrite content. The other ingredients, ethyl nitrate and aldehyde, play relatively little part in its activity. The acidity commonly associated with this preparation is of no importance except from the point of view of incompatibility. It is interesting to note also that spirit freshly made from the B.P. formula contains more ethyl nitrite than that made from the London or the German formula. An important point is, the deterioration of the spirit takes place rapidly, and in terms of ethyl nitrite, its active ingredient. Addition of water liberates the nitrite rapidly; storage of the spirit has the same effect, but deterioration is less rapid when the bottle is well closed and the contents kept from the action of light. It is also suggested that the presence of ethyl nitrate tends to diminish the loss of the nitrite. The conclusions are that spiritus aetheris nitrosi should be as fresh as possible and carefully preserved; also that it should be prescribed as such and not in a mixture, being diluted just before administration.

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**Benzene Treatment in Leukemia**

The principle of the treatment is considered sound by Boardman. He believes that with proper precautions, there is no appreciable danger in using benzol. The improvement is a real improvement, and not due to accumulation of the leukocytes in the central vessels. The improvement is only temporary, as in their other methods of treatment. The treatment is applicable in all chronic cases of leukemia. Bronchitis and anaemia cannot be considered contraindications. The presence of nephritis is a more serious complication and demands more careful consideration. The treatment is more readily administered and is less costly than the Röntgen ray, and may be



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given to those unable to obtain Röntgen ray. The percentage of improvements is about the same under benzol as under Röntgen ray.

The drug is best administered in freshly filled gelatine capsules with an equal amount of olive oil; the maximum daily dose not to exceed 5 gm. The treatment must be carefully controlled by frequent blood and urine examinations and discontinued if there is evidence of kidney irritation, or when the leukocytes reach values of 25,000 to 20,000. The best results follow the combined benzol and Röntgen-ray treatment, the benzol effect apparently being increased by a preliminary Röntgen-ray treatment. Some cases will not respond to benzol in the usual dosage and in the usual time, and other patients are unable to take the drug owing to gastro-intestinal disturbances, etc. When carefully administered and carefully controlled, benzene is apparently a valuable addition to the methods of treating chronic leukemia.—*J. A. M. A.*

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### **Pathologic-Anatomic Effects of Poisonous Gases**

Pojarisky studied the pathologic changes from asphyxiating gases in forty cases; in six cases after an interval of from twelve to thirty hours, in twenty after two or three days, and in fourteen cases from three to eleven days after the asphyxiation. The principal changes that occurred within twelve hours after asphyxiation were marked œdema of the lungs and partial atelectasis, and severe changes in the blood, especially in Bizzozzero's blood plates and in the walls of the vessels, the endothelium. The red corpuscles suffer but little. Owing to these changes in the blood, substances form which increased the coagulability of the blood, rendering it thick and unable to circulate. In many cases there was formation of white adherent thrombi. The blood changes and thrombi formation render the work of the heart very difficult, and the nutrition of the tissues suffers, which leads to asphyxia and death from pulmonary œdema. Miliary hæmorrhages in the brain are very frequent. After three days complications may arise, such as putrid bronchitis, partial pulmonic gangrene, pleurisy, embolism, hæmorrhagic infarcts, etc. These complications may lead to permanent disability even if there is recovery from the asphyxiating gases.—*J. A. M. A.*

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### The Oculocardiac Reflex

In the *Archives of Internal Medicine* of May 15, 1915, is discussed, by Levine, this interesting theme. He concludes as follows:—

1. Ocular pressure affords a simple and safe method of obtaining reflex vagus inhibition of the heart.

2. Inhibition of the heart by the oculocardiac reflex is much more profound and more frequently obtained than by pressure over the vagus nerve.

3. The oculocardiac reflex is generally absent in tabes dorsalis, present in pneumonia, syphilis (non-tabetic), and chronic valvular disease.

4. The reflex was absent in one case of diabetes mellitus and also in one case of auricular fibrillation before digitalis treatment. It was present after digitalis was given.

5. Right ocular pressure has a slightly greater effect on the rate of the heart than left. It may stop the heart for a long period of time, relatively speaking; the P-waves are sometimes diminished in size and may become iso-electric. Occasionally the auriculoventricular interval is lengthened.

6. Left ocular pressure has a much greater effect on the conduction mechanism of the heart than right. It may lengthen auriculoventricular conduction, cause partial heart-block, and result, possibly, in automatic ventricular rhythm. On two occasions inverted P-waves were seen. The height of the R-waves is sometimes increased, at other times diminished. Ectopic ventricular beats were twice observed. The P-waves are often diminished in size, but occasionally are increased. Escaped ventricular beats were seen both during right and left ocular pressure.

7. Pain, flushing of the face, and apnea during ocular pressure, are much less pronounced in tabetics than in non-tabetics.

8. The effects on the rate and on the rhythm of the heart produced by ocular pressures are not constant, differing in different individuals and in the same individual from time to time. The duration and the degree of pressure play an important part in the degree of inhibition.—*Therapeutic Gazette*.

# The Canadian Practitioner and Review

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## Original Communications

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### THE MEDICAL COMMISSION

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BY JOHN FERGUSON, M.A., M.D., Toronto.

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At the opening of the new General Hospital, the late Sir James Whitney, then Premier of Ontario, made the announcement that it was his intention to appoint a commission to enquire into and report upon the various groups of persons who practised, or desired to practise, medicine in some form. This commission was to be vested with power to take evidence from every possible medical or pretended medical sect.

During the past few years the Legislature has been set upon almost every session by some one or other of these bodies for the purpose of securing special Acts to enable them to practise some feature or limited field of general medicine. There are, for example, the optometrists, who wish to treat the eyes, without taking a course in medicine; there are the Christian scientists, who say there is no such thing as disease or pain in their system, and who can treat and cure all manner of ailments, all of which are delusions, through the mind; there are the chiropractors, who regard the teachings about infections as the vapourings of fools, and who can cure everything from a mole on the face down to an ingrowing toe-nail by replacing some nerve in the neck, that in some mysterious and ill-behaved way strayed from its proper place; then there are the osteopaths, who can do such wonders by the way they can twist and pull this strange body of ours until it has learned how to do its work properly. Pleurisy, neuralgia, a stiff knee, eczema, and so forth, come under the domain of osteopathy—the *pathy* of the *bones*. How *marvellous* all this seems!

Well, to try to adjust all this, and secure a measure of order out of this state of chaos, or rather brazen impudence based on the grossest ignorance, the Government has appointed Mr. Justice F. E. Hodgins, of the Supreme Court of Ontario, to take evidence from such bodies as may wish to be heard. The report of the commission will, no doubt, be made the basis of important new medical legislation. The terms of the commission issued to Mr. Hodgins are in the following words:

“To enquire into and report upon all or any matters relating to education for the practice of medicine in or affecting the Province of Ontario; the constitution, powers, duties and regulations of any body, corporate or unincorporate, and of any faculty or department thereof having any relation to medicine, the exercise of the same and the revenue and expenditures thereof; the situation, legal or otherwise, of such bodies in regard to each other or to the Province; the establishment, creation, control and regulation of any new body intended to have relation to medicine; the existing or possible methods of examining, licensing or otherwise authorizing the carrying on by individuals of the practice of any methods having any relation to medicine and the standards prescribed and followed or proper to be established and followed; the present positions, status and practice of osteopaths, dentists, nurses, opticians, optometrists, chiropractors, Christian scientists or others practising or professing medicine; the existing laws of Ontario in relation to any of the foregoing and their practical operation; any matter arising out of the foregoing which it is necessary to investigate with a view of the above inquiries.”

Now is the time for the medical profession to show a united front. It must now place before the commissioner, and, through him, the Legislature and people of Ontario, its pre-eminent claims to be regarded as *the* medical profession. There must be no division and no weakening. It must take the high stand, which fortunately is the true stand as well, that the medical profession of this Province has ever stood for the good of the people. It has led in the fight for preventive medicine, founded on the solid ground of scientific investigation. The truest friends the people have are the members of the medical profession, and no class of the community give so freely of their skill and time as do medical men. In all the charities and in very many homes of this Province they are daily caring for the poor.

For fifty years, in the face of much opposition from the people themselves who were to be benefited, the medical profes-



sion has fought for higher standards of education, which meant greater efficiency; and the sick and injured are the persons who must profit by this. It would be a crying crime if the Ontario Legislature should now formulate any legislation that would undo in the least this good work; or, in any degree weaken the pillars that now support the medical edifice erected through so much toil and anxious care. The responsibility resting upon the shoulders of Mr. Justice Hodgins is truly great. The eyes of the educated are focussed upon him, and the welfare of the future lies now squarely across his path. The sacred claims of humanity demand that every phase of medical practice and medical education be weighed and studied with the utmost thoroughness. Duty demands this much. Wordsworth saw it when he said:

“Stern duty, daughter of the voice of God!  
O duty! if that name thou love,  
Who art a light to guide, a rod  
To check the erring and reprove.”

The report of the commissioner must be the stern voice of duty, it must be a light to guide in the securing of proper legislation, and it must be a rod to check the erring, or all such as would attempt to diagnose and treat disease without first, by long and ardent study, becoming acquainted with the best methods of searching out disease in its many hiding-places, and of applying “the proper balm to raise the sufferer from his bed of pain.” The people cannot be trusted; for they are quite ready to call in the most ignorant empiric, where the most skilled would find the greatest difficulty in mastering the problem. The law must provide a thoroughly trained *healer*, so that whether the patient seeks the advice of a regular practitioner, or an osteopath, or a chiropractor, he will have the guarantee of the law that each of these had to conform to a high standard of medical education; and we contend that the standard for all should be the same.

It would be an impossibility to make a skilful ophthalmologist by giving him a medical education on the eye alone. That education might be thorough on the anatomy and physiology of the organ. It might cover all the details of the surgical procedures pertaining to the eye. It might go into the medical treatment of its diseases. It might discuss learnedly all about refraction. The whole system would go limping

along, and ever stumbling into the most serious of pitfalls, to the disaster of the patient, because of the lack of the guiding light of a general education in medicine. How much more, therefore, does not this apply to chiropraxy, osteopathy and all such partial, broken, disjointed, distorted and fragmentary attempts at learning and practising medicine. These are but the little systems that "have their day and cease to be." Stripped of all idle and vain claims, chiropraxy and osteopathy are but methods of hand treatment, are only forms of manipulation, rubbing, pulling and friction. In some form they have been before the world from the earliest times and in more recent decades have been known under such names as bonesetters, and the Swedish movement cure, and so on. In the name of all that is sacred to science and the good of humanity, surely the day has not now come, when there is to be a lowering of our ideals; when Athena and Artemis must close their eyes with a shudder on what has been done to wisdom and the care of the sick; and when Apollo shall no longer see the sun at his zenith, but as he hastens to his setting, permitting the gloomy shades of night to spread over his beloved Delos.

Just as certain as any compromise with evil leads to disaster in the life of the individual and the nation, so must any compromise in the case of sound learning and science. Osteopaths and chiropractors have nothing to offer the public. They have added nothing to the sum of medical knowledge; and they seek a short cut into a limited amount of medical knowledge in order that they may practise a subsection of therapeutics, without learning when that subsection would be useful, or might do harm. If this sort of practitioners are going to apply their method to the treatment of disease, and do this apart from the help of a regular medical practitioner, then the law must see to it that he be compelled to take such a course of training as will enable him to know when he may safely apply his method of manipulation and rubbing. The nurse cares for the patient under the direction of the doctor; but if she wishes to direct her own care of the patient and do her own prescribing, then she must qualify as a medical practitioner. Can there, then, be two opinions as to what the chiropractor should be compelled to do? If he is going to take it upon himself to tell his patient that a certain nerve has slipped out of its place, and that he can by certain delicate passes of his hands replace the said nerve, he should be given to understand that such feats in diagnosis and treatment may only be entrusted to those who have secured the

diploma of the Medical Council, which guarantees a certain degree of learning that all should possess. Similarly as to the osteopath. Up to the present he is only a sort of masseur, and should come under the strictest regulations that if he is going to rub people and charge for it, as a means, not of mere massage, but for the treatment of disease, he must be able to detect disease, and do his massage, etc., in such a way as not to do harm. Just think of a certain osteopath who for months rubbed the head of a young woman who was the victim of dementia præcox, and is now in an asylum! A little learning would have avoided and prevented such an exhibition as this. It might have been that this worthy osteopath had in mind the ironical words of Prior:

“From ignorance our comfort flows;  
The only wretched are the wise.”

But we prefer to apply to him the scathing words of Shakespeare:

“Man, proud man,  
Dressed in a little brief authority,  
Most ignorant of what he's most assured,  
His glassy essence, like an angry ape,  
Plays such fantastic tricks before high heaven  
As make the angels weep.”

Yes, when our osteopath was hard at work rubbing the head of the poor victim of dementia, some angel perchance wept!

Has the plea made been fully argued? No! The Legislature of this Province, and the people of this Province, have expended vast sums of money on colleges, universities, hospitals and asylums for the promotion of medical science and the proper care of the sick and injured. Quite recently the Ontario Legislature has inaugurated an extensive system of preventive medicine. Generous individuals have been giving money for the purpose of encouraging research. These are onward steps that came as the result of long years of toiling and sowing. During these years the medical profession has been gradually raising public opinion, and been steadily erecting a wall around the health of the people that might be looked upon as safeguarding it against the assaults of those who sought all sorts of short cuts to the making of gain out of the sufferings of their fellow man, and preying upon their credulity. Has the time come when we are to witness the fulfilment of the words of Longfellow:



“ For in the night, unseen, a single warrior,  
In sombre harness mailed,  
Dreaded of man, and surnamed the Destroyer,  
The rampart wall had sealed.”

Let us strive that no breach shall be made in our medical educational system, and see to it that the day is not yet when “ The Destroyer,” under whatever name, “ the rampart wall shall scale.”

The most sacred duty of the state is to protect the individual members thereof. There are many walks in life that are too clear and self-evident, that but little guidance is required, and but little care need be expected by way of legislation. As we ascend, however, in the scientific achievements the relationship of the state to the individual is completely changed. But little legislation is required to direct the day's journey by means of the ox and cart; but, on the other hand, very careful legislation is demanded to regulate ocean traffic. So, when one comes to medical science, one of the most complicated of all sciences, and founded on vast inductions, the people are no longer able to judge for themselves, and the Legislature must see to it that all who would attempt to apply the principles of medicine to the healing of disease must be properly trained. The lawmaker who does not go this far is recreant to his duty—is a traitor to the safety of the people. The people are not capable of deciding whether they should call in an osteopath, a chiropractor, or a regular physician, and especially if all these are permitted to use the title “ doctor.” The one remedy is to make all take the same training, and therefore be free to assume any name they choose for their school or sect.

Nor should the osteopaths or chiropractors object to this. They wish to treat the sick, and they wish to charge fees for their services. They should not object to be compelled to understand disease; and the people have the right that when they pay their fees they receive intelligent treatment. But no law can be framed by the skill of the ablest of men that will accomplish these results if any one is allowed to practise a part of medicine without first knowing the whole. Who among us could properly administer digitalis until he had first learned the physiology and pathology of the heart? Who could conduct a surgical practice without a knowledge of anatomy, hygiene, antiseptics, etc.? Who could safely manipulate and rub a knee joint unless he first knew whether it was chronic rheumatism or tuberculosis? Nowhere in all the range of human experience is the

saying truer than in medicine that "a little learning is a dangerous thing." Let us be great in this, and

"God grant that we may never fail  
From craven fear of being great."

A word or two about the Christian scientists. We have nothing to say against them as a religious denomination. This aspect may be left to the other denominations. What we may say has to do with their views on disease and its treatment. Disease, they tell us, is a delusion of mortal mind, and if one can only get his mind into a proper frame there is no disease. So it comes about that suggestion can cure all ailments. True, this suggestion comes along the lines of Christian faith. This is a very one-sided view. We are not saying a word against the resort of the Christian to prayer and the sustaining influence he may derive from his faith. We do condemn this being lowered to the base level of a mercenary system, and used as a means of blinding the eyes of the people against the great advances that medical science has made in the treatment of disease.

No drugs are given. For this let us be truly thankful. People who hold that the poison in the belladonna plant is there because we think it is there would not be safe persons to order the use of atropine. But a child is walking along the roadside and eats some of the leaves of the belladonna plant and is poisoned. The child knew nothing of the belladonna or the views of the Christian scientist, nevertheless it is poisoned. But some ailments may be treated without drugs and some cannot. Syphilis cannot be treated without the proper remedies. No amount of suggestion would help the little cretin child. Here we must fall back on the preparations of the thyroid gland. All who hold the views on disease and therapeutics, held by the Christian scientists, should be prohibited the right to treat the sick.

Centuries of strenuous effort look down upon the medical profession. It has become great in its long search after truth for the good of man. It holds no secrets and has no proprietary rights. What it has discovered, it has ever freely given out to the world. The science of medicine stands to-day unrivalled as the greatest of all the benefactors of the human race. Step by step it has won its way; and one by one it has made nature yield up her hidden mysteries. Medical science has fought against superstition, has fought for the rights of man, and has

done it all with the olive branch of peace in her hand, and with the white-winged dove of mercy perched on her banner. There may be some who would say that it is now necessary, however, to meet the claims of the irregular schools to a certain extent. Earl Chatham, in one of his speeches, said that "necessity is the argument of tyrants, it is the creed of slaves." The medical profession is a slave to nothing but its own high ideals. It cares not how many enter its ranks so be it that they enter in the regular way. As Othello demanded long ago, it "sets down naught in malice, and naught extenuates." If it seeks to maintain a high standard it is not from a desire to keep others out, but that those who do enter shall prove worthy disciples of *Æsculapius*, and prove the truth of the lines:

"A wise physician, skilled our wounds to heal,  
Is more than armies to the public weal."

In the struggle that is now on there is a contest between two ideals. One set of persons, dominated by the ideal of a high standard of education, have brought medicine to where it is to-day. The other set, or rather sets, seek to abridge that course of study, seek to qualify for certain aspects of practice in some easier way. This would be most retrograde. In this struggle let there be no compromise. If certain privileges are to be granted, let them be granted against the protest of the medical profession. A glorious defeat is better than an inglorious peace. But with firm adherence to our principles there will not and cannot be defeat. What we have we shall hold, but only in trust for the people. In the history of the medical profession of Ontario may the words of Lowell come true:

"Once to every man and nation comes the moment to decide,  
In the strife of truth with falsehood, for the good or evil side,  
Then it is the brave man chooses, while the coward turns aside."

Every medical practitioner throughout Ontario must now do his full duty. He best knows what he can do and where he can place his influence. What all desire is good legislation, but this cannot be secured without an effort, "for the eagle of victory perches high." Every stage of the legislation dealing with medical affairs must be watched and fought to the last day of the third reading. Many years ago I heard an eminent statesman, in this country address a meeting, and the burden of his



message to his followers was "Organize, organize, organize." Every district should at once organize. The whole case should be submitted in the clearest manner to the member representing each district. Every medical man must become a trained archer, driving home the arrows of sound knowledge from the bow-strings of truth. Line up behind the various medical associations. If this is done with promptitude and vigor after the fight is over we will be able to exclaim in the words of Lord Bardolph,

"O, such a day,  
So fought, so followed, and so fairly won,  
Came not till now, to dignify the times,  
Since Cæsar's fortunes."

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### **Ether in Infective Gangrene**

(L. Ombrédanne: *Bull. et. Mém. Soc. Chirurg. de Paris*). The author has treated at Verdun large numbers of cases of infective gangrene. Several methods have been tried unsuccessfully, but now ether is being used, and is found to give perfect satisfaction. The wound is opened, all projectiles and foreign bodies removed, and parallel incisions made over all crepitating areas. The wounds are washed with ether, and gauze soaked in it is passed under the bridges of skin. Gauze compresses of ether are placed on the skin, and the whole rapidly enclosed in an impermeable covering, which is itself covered with a pad of cotton wool. The dressings are changed completely twice daily for three or four days. Good results are noticed in from three to six days, even where crepitations and gangrene are already present.—*The Prescriber*.

## REPORTS PRESENTED BEFORE THE ONTARIO MEDICAL COMMISSION

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### **The Ontario Medical Association**

The following is a statement made before the Medical Commission, under Mr. Justice Hodgins, by Dr. H. B. Anderson, President of the Ontario Medical Association, of the attitude of the medical profession in Ontario towards the various cults of irregular practitioners who are seeking recognition at the hands of the Government:—

Your Lordship:

The Ontario Medical Association was organized in 1880. Its ordinary membership consists of regularly qualified medical practitioners in good standing, resident in the Province, or those engaged in teaching or research work in medicine or the allied sciences in the Province of Ontario. It is the Ontario Branch of the Canadian Medical Association. The present membership is about 1,000, and includes the leading practitioners of the Province.

At the outset, may I direct attention to the fact that the legislation passed from time to time to regulate medical practice in Upper Canada, afterwards the Province of Ontario, culminating in the laws under which we are now governed, was for the purpose of affording protection to the individual and the community from unskilled, ignorant, medical practitioners and quacks, by which the country was overrun at an early period in the history of the Province. So much was this the case that there was a public outcry and demand for protective legislation. To substantiate these statements, may I submit the following:

“The Medical Profession in Upper Canada (Canniff), p. 26  
—Extract from an article contributed by the late Bishop Strachan—1812—

“The Province is overrun with self-made physicians who have no pretensions to knowledge of any kind, and yet there is no profession that requires more extensive information. They comprehend not the causes or nature of disease, are totally ignorant of anatomy, chemistry and botany; many know nothing of classical learning or general science. Where shall you

find one among them, attending particularly to the age, constitution and circumstances of the patient, and varying his prescriptions accordingly? It is indeed preposterous to expect judgment and skill, a nice discrimination of diseases or a proper method of cure from men who have never been regularly taught, who cannot pronounce, much less explain, the terms of the art they profess, and who are unable to read the books written upon the subject. The welfare of the people calls aloud for some legislative provision that shall remedy this increasing evil; and examination, however slight, would terrify nine-tenths of the present race.' ”

It was no question of conferring unusual privileges on a body of medical men for their own benefit, or to create a monopoly, but to give them power to ensure to the people of the Province the services of well educated, properly trained practitioners to attend them in sickness. We believe it, therefore, of much importance that there be a clear understanding of the chaotic and unsatisfactory condition of medical practice which gave rise to the public clamor for protection, and which resulted eventually in the establishment of the College of Physicians and Surgeons of Ontario.

The Ontario Medical Association believes that the College of Physicians and Surgeons, our universities and other organizations having control of the education and licensing of medical practitioners, have honorably and fairly discharged their duties in the public interest. The doors of the profession have always been and are now open for the admission of any who comply with the common regulations regarding education, training and examinations. In no sense of the word may the profession of medicine in Ontario be considered a close corporation.

The Ontario Medical Association holds that every person before being legally entitled to treat the sick should comply with the same educational conditions; whatever the system of treatment may be, it can be most intelligently carried out by one who is properly educated. This applies alike to preliminary as well as to scientific or professional education.

To understand disease and treat it intelligently necessitates a knowledge of the structure and functions of the body in health, as well as of the various conditions acting upon the body to produce change or derangement of these structures or functions—that is, disease. To be able to understand and treat disease intelligently, therefore, requires a proper training in anatomy



and physiology, by which we learn normal structure and function; in pathology, including pathological anatomy and pathological chemistry, by which we learn of the changes in structure and function encountered in disease; in chemistry, physics and bacteriology, in order to understand the conditions acting upon the individual to produce disease, and to acquire information necessary to apply preventive measures, requisite alike to ward off disease in the individual and to protect the public, as in the case of infectious disease.

A study of the signs, symptoms and course of different diseases is necessary in order to be able to recognize them and to diagnose or differentiate one disease from another. Hence, proper clinical training is a prerequisite of any intelligent plan of treatment, as it is obviously impossible to apply treatment properly or with safety until one knows what the disease or condition is that he seeks to remedy. These principles of necessity apply with equal force, whatever the mode or system of treatment which may be deemed most useful or advisable for the relief of the disease, when once it has been recognized.

It follows, therefore, that the same scientific and clinical training is a prerequisite for all forms of treatment. The arbitrary belief in any special dogma, system or plan of treatment can in no way relieve one of the necessity for this training in the fundamentals of intelligent practice. The irregular systems of practice do not claim a special form of anatomy, physiology, chemistry, physics or bacteriology. Once the would-be practitioner is properly trained and legally qualified, no restriction is, or should be, placed on his freedom to obtain further knowledge in any form of treatment or of the right to practice it. This is recognized under the medical laws now in force in the Province. Only by the acceptance of these underlying principles are equal rights and privileges granted to all, the safety of the public protected and medical science promoted.

In the countries of Europe these principles are recognized as underlying every legalized form of practice. For the state to recognize the right of any to practice medicine without the knowledge to be acquired only by training in the before-mentioned subjects, is to expose not only the individual but the public to grave dangers.

The inability to diagnose may allow a patient with a diseased spinal column to be manipulated, producing dislocation, crushing of the spinal cord, paralysis and death; a tuberculous joint may be manipulated and the disease disseminated; an

aneurism may be ruptured; apoplexy produced in a patient with high blood pressure or death result from manipulation of a goitre.

Massage, manipulation, mechanotherapy, hydrotherapy and other drugless forms of treatment, are recognized and practised as a part of general medicine and require for their safe application the same ability to diagnose and select the proper cases as with medicinal treatment.

The public health would be endangered from any inability, owing to defective training, to recognize diphtheria, typhoid, syphilis or other infectious disease, which depend for their diagnosis on clinical training and the knowledge to apply modern laboratory methods.

In medico-legal cases and death certification the inability to recognize the disease being treated or the cause of death would open the door to possibilities too serious to require emphasis.

Life and accident insurance companies have interests which depend upon the ability to diagnose accurately and manage properly diseases and injuries.

Modern medicine is opposed to the recognition of any special dogma or exclusive theory of practice, because acceptance of such excludes the necessity for testing out these theories, and the careful investigation and weighing of facts upon which scientific knowledge and practice depend for their advancement. At the same time, it recognizes and encourages the investigation of every form of treatment in so far as it is without danger to the individual or the community.

Provision has been made in the Provincial University and in other universities of the Province at great expense to the public, to furnish proper education and the scientific training which are prerequisite to treatment. The privileges of these institutions are open to all who prepare themselves to take advantage of them.

We believe that the Government would stultify itself by expending large sums to equip and maintain institutions to provide proper scientific training if illiterate, inferiorly educated or untrained men are granted the right to practise.

The Ontario Medical Association, whose members have had to comply with the educational requirements of these institutions and to pass the examinations prescribed to qualify them to practise, is opposed to the admission to practise on different terms of the graduates of inferior, proprietary institutions of a foreign country. We believe that all should enter by the

same door. The report of the Carnegie Foundation (1910, pp. 163-6) says of the osteopathic schools of the United States: "The eight osteopathic schools fairly reek with commercialism. Their catalogues are a mass of hysterical exaggerations alike of the earning and curative power of osteopathy." "It is impossible to say upon which score the 'science' most confidently appeals to the crude boys or disappointed men and women whom it successfully exploits. Standards, those concerns have none, etc." These are the statements made after an exhaustive investigation by commissioners who were not medical men.

The members of our association, in order to qualify themselves for specialized practice, have had to spend often many years in post-graduate study abroad in order to extend their knowledge. If those wishing to undertake other special forms of practice have to go elsewhere for training or to extend their knowledge, after graduation in the regular way, they have a similar right and opportunity to do so; and for this no special legislation is required.

May we also point out the claims which the body of regular practitioners have for asking consideration of their views, by reason of the gratuitous medical services which they have always rendered the indigent, and their efforts to further preventive medicine and promote the public health. At the present time hundreds of the doctors of this Province are serving their country overseas, and many hundreds of those at home are caring for the needy dependents of our soldiers. We submit at such a time and in the absence of many from the country it would be an act of injustice and ingratitude on the part of the Province to give legal status to any body of inferiorly trained persons to practise and thus to jeopardize their interests unnecessarily.

In the questions now at issue, the Ontario Medical Association wishes to place itself on record as taking the broadest possible ground in the interests of the community, for the advancement of the science and practice of medicine—preventive as well as curative—as well as in the safety of the sick and ailing. We seek only equal rights for all in upholding those principles which are essential alike for the safety of the sick and ailing, and for the promotion of medical knowledge and practice in all its branches, which in this Province were established primarily for the protection of the people from the dangers of incompetent medical practice and quackery.



### The Provincial Board of Health

Dr. John W. S. McCullough, C.O.H., Ont., expressed very definite opinions as follows:

1. The standard of medical sanitation should be maintained, and, with the advance of scientific knowledge, increased.
2. Those entering upon the study of medicine should have a good preliminary education, equal at least to honor matriculation.
3. The course of study should embrace at least five years of nine months each.
4. Since it is admitted that the fundamental principles of medicine should embrace a thorough knowledge of anatomy, physiology, biology, physiological chemistry, bacteriology, pathology, diagnosis, as well as clinical experience, these subjects must be included in the course of study, no matter what form of treatment any physician desires to pursue.
5. There should be but one standard of qualification for those who desire a provincial license.
6. No one should be allowed to practise medicine in any shape or form unless he has pursued the required course of study and passed the prescribed examinations.

"The licensing of physicians by the state," continued the doctor, "is designed for the protection of the public against fraud and quackery, and should be a guarantee, in so far as it can be, that he who calls himself a doctor and sets out to treat disease is properly equipped for the work he undertakes.

"There is plenty of evidence that those in the Province now outside the profession, but who desire to enter it by an easy and unexpensive route, have not received the qualifications already referred to. The schools where osteopathy, manotherapy, chiropractic and other creeds are taught exist only in the United States. The course of study is of the poorest character."

He quoted the following comment from the now famous reports of the Carnegie Foundation, referring to chiropractics, mechano-therapists and others.

"They are unconscionable quacks whose printed advertisements are tissues of exaggerations, pretence and misrepresentation of the most unqualifiedly mercenary character. The public

prosecutor and the grand jury are the proper agencies for dealing with them."

Another quotation said these schools "reeked" of commercialism.

"A year or two ago I took the trouble to verify the Carnegie report by securing catalogues from all the colleges described. In addition I asked how a young man of limited means and education might hope to qualify.

"The replies confirmed and more than confirmed the statements made in the Carnegie Reports."

Concerning the requests made by representatives of these various sciences that they be licensed, "a modest request, truly!"

"What in my opinion should be demanded of them is that all these individuals pass the qualification required of every physician, then that they may use any form of treatment they wish."

Giving examples of what medical science was able to accomplish, the doctor said:

"The water at Niagara Camp where the troops of this division were quartered for the last six months is perhaps the worst in Canada, carrying as it does the sewage of Buffalo and other towns up the river, where the presence of typhoid is almost constant. Yet in the 20,000 men who passed through the camp in the period mentioned not a single case of typhoid was traceable to infection in the camp. This was due not only to the inoculation of the men against the disease, but also to preventive measures taken to purify the water, destruction of flies, etc."

He traced some of the decreases in death rates due to medical science. It would do still more if the standard were maintained.

"But if, on the other hand, unqualified charlatans who treat every disease by massage or by readjustment of the spinal vertebræ, or by mechanical exercise, or by prayer, present or absent, without the aids which God has given to mankind, are allowed legally to carry on their propaganda, I look forward to a serious setback to the prevention of disease amongst our people."

Dr. C. O. Hastings, M.O.H., Toronto, quoted figures to show the good work being done by medical science in the prevention of disease.

"It was the laboratory workers who built the Panama Canal." It was not the superiority of the American engineers

over the French. It was the scientific advance of medical and sanitation research work which, by conquering yellow fever, enabled the Americans to succeed in building the canal where the French had failed.

Preventive measures were much more important than curative medicine.

"We have been able to reduce the mortality due to typhoid fever from 46.5 per 100,000 of population for the first ten months of 1910, to 1.4 for the first ten months of 1915. Reduction of mortality in the case of diphtheria is from 41.9 per 100,000 in 1910 to 16.0 in 1914, and in scarlet fever from 23.8 in 1910 to 6.7 in 1914.

"It was the discovery of the tubercle bacilli as the cause of tuberculosis that has enabled the administrators of public health to wonderfully reduce the mortality during the past twenty-five years. The application of scientific knowledge in the diagnosis of this disease has made it possible to recognize it at a stage in which from 50 per cent. to 75 per cent. of the cases can be cured.

"It was the knowledge obtained by scientific investigations into tropical diseases that reduced the mortality in the Panama district from 400 per 100,000 to one of the lowest on the continent.

"From this, it must be apparent to your Lordship that the scientific knowledge necessary for the degree of M.D., as conferred by our universities, is the minimum knowledge that would be necessary to play any rôle in accomplishing results in the field of prevention of disease."

Dr. R. A. Reeve stated that the Ontario Medical Association had a membership of 900 licensed practitioners who had no disqualifying shibboleth. Homœopaths were not excluded, and the term "allopath" has gone out of use, according to Dr. Reeve, the phrase "regular medical practitioner" being now used to describe the acknowledged physician. Referring to conditions existing in Ontario, Dr. Reeve said that owing to wise legislation quackery and charlatanism have been reduced to a minimum, and there is no country as free from medical exploiters as is this Province. Now, however, a new condition is arising, and the public must, in a sense, be protected from themselves. Ontario should not, he said, take a retrograde step by lowering the standards of education and license. Results of mischievous legislation were evident in the United States, where cults are



permitted that are not tolerated in any other civilized country of the world.

It would, he continued, be a prejudice to the public and unfair to the medical profession, to legalize such notorious colleges as the Ophthalmology College, Toronto, and Manotherapy, Hamilton.

Dr. Angus MacKinnon, Guelph, saw no objection to the practice of osteopathy so long as the practitioners were qualified by training and education to administer the treatment. In reply to a question, he stated that it was contrary to all medical tradition to advertise at all. If the osteopaths qualified the same as other practitioners he would favor letting them practise anything they liked.

"If a student takes the course provided at great expense by the University of Toronto and passes his qualifying examinations, he then may practise by such methods as are legally permissive," stated Dr. Falconer in explaining the attitude of the university in regard to medical education. "It has been said by others than regular doctors that they obtain good results, but," he added, "we maintain that valuable as some of these other methods may be, they are dangerous unless practised by men who have a competent knowledge of disease and the human body, and a fundamental training and practical experience in the matter of treatment."

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### **Academy of Medicine, Toronto**

A special committee was appointed by the Toronto Academy of Medicine to present the views of the Academy before Mr. Justice Hodgins, the Commissioner appointed by the Government. Dr. Arthur Jukes Johnson was appointed chairman, and Dr. Goldwin Howland Secretary of the Committee.

On Wednesday, Nov. 3rd, the Committee stated their case before the Commissioner, at the Parliament Buildings.

In introducing the Committee, Dr. W. H. B. Aikins, President of the Academy, said:

The Academy of Medicine, Toronto, was incorporated in 1907, and was a result of the union of the Ontario Medical Library Association with the Toronto Medical Society, the Toronto Clinical Society and the Toronto Pathological Society.

The purposes of the Academy are: The advancement of the art and science of medicine with its collateral branches:

the promotion and maintenance of an efficient library and museum; professional improvement, the cultivation of harmony and good feeling among its fellows, and the promotion of the corporate influence of the profession in relation to the community.

The objects of this organization are social, scientific, educational and patriotic. There is also a very valuable medical reference library open to the Fellows of the Academy. Meetings to discuss the various medical problems which arise are held at regular intervals.

This Association offers to its members a ready means of sharing any ideas that they have either from their own research, or brought forward in any scientific publication, or mentioned in any books whether that happens to be the work of some known author, or merely something new that may by mere report be said to be of value in the realm of the healing art. It offers to every member the right to bring forward, and discuss, and have discussed any ideas or suggestions that might contain anything that would be of use in attempting to combat disease and relieve suffering.

Shortly after the outbreak of the war the members of the Academy offered their services as a patriotic duty to attend free of charge the needy dependents of our soldiers, and 240 members are now assisting in the Patriotic Relief Work of giving skilled attendance to the necessitous dependents of the allies in Toronto. They are seeking no personal gain for this service willingly rendered; sixty-two of the members are on Overseas duty at the present time, and others are in readiness to go.

The Fellows of the Academy are regularly qualified medical practitioners, or are engaged in teaching or research work in medicine or allied sciences, and are elected by ballot after full investigation as to their status and attainments.

The Council of the Academy appointed a Committee with Dr. A. J. Johnson, as Chairman, and Dr. G. Howland, Secretary, to arrange for this hearing before Your Lordship, and in presenting to you this Committee, some of whom will speak. I am presenting men of wide knowledge and great experience, trained scientists and specialists, who can speak with authority born of deep study and skilled observation.

Dr. Arthur Jukes Johnson, chairman of the Committee, was through illness unable to be present, but sent the following statement:—

I have been asked to speak as to my personal experience with irregular practitioners.

They are a menace to the safety of the public chiefly from two standpoints:

1. *Because of their undertaking to cure disease of which they know nothing and thereby prolonging suffering.*

2. *Because their ill-directed efforts are not always free from danger to life itself.*

There are a large number of persons in the Province who are more or less weakminded. If they are admitted to an asylum many of them at times are so bright and clever that their friends will not believe that they are a fit subject for an asylum. Friends induce the relations of such people to try something new, something that it is supposed medical men know nothing about, something that has some mystery about it.

The irregular practitioner not understanding anything of insanity looks upon these cases as any other person who did not understand mental conditions might, as being a mere nervous affection, and at once promises a cure. The patient is taken into a half hospital, half private house where the irregular practitioner lives and is treated there, chiefly by somewhat coarse methods of massage. As soon as another attack, accompanied by the more marked symptoms of insanity, occurs, this patient either escapes or commits suicide, or gets into some other place of the same kind to repeat the same process.

A number of these cases have come under my notice. In some inquests have been held, in others a certificate of death has been secured from a regular practitioner either through misrepresentation or by some other method equally disgraceful.

When an attempt is made to inquire into one of these cases the result generally seems to be that the Coroner's jury are inclined to think that the deceased had already been treated in an asylum and had not improved and that the irregular practitioner had almost succeeded in doing something, which, however, he failed to accomplish, and that under any circumstances a broken-down, more or less decrepid, semi-insane person could easily be spared.

Two cases at present in hospital in the city of Toronto will illustrate the danger of treatment by irregular practitioners. One is the case of a gentleman who contracted a disease without his knowledge, which when properly treated can be cured absolutely. This man tells me that he has been under the hands of a large number of regular and irregular practitioners. That the suggestion of three years of constant treatment which the regular practitioner told him would be absolutely necessary for him to observe to enable him to be perfectly



well was too old-fashioned and slow. He therefore tried various irregular practitioners, they all promised him that he would walk again quite well in a short time, and be able to attend to his business. He grew steadily worse and is now under the care of one of this Committee. This poor man will probably never recover completely, but he will improve.

Another case is that of a young girl who for many weeks has been under the treatment of an irregular practitioner in the City of Toronto. She has paid a large sum of money at regular intervals for this treatment. She has always been assured that she has nothing the matter with her but what could be made well, and she has now drifted into hospital a veritable wreck, with a form of disease that is absolutely incurable as far as science knows.

The suggestion which has been made that the irregular practitioner should be allowed to put some of his forms of treatment into execution in the Home for Incurables and other such institutions, would, judging by these cases, merely produce an amount of unnecessary suffering without any result.

Where death has resulted from improper treatment or gross ignorance of the disease from which a patient is suffering we have had a number of cases.

In the case of *The King against Lewis*, it was shown that a child of the accused had diphtheria, that the child was treated by a healer who did not believe that the child had anything the matter with it that could not be removed by silent treatment. In this case it was shown that at the present day only a half of one per cent. of children who suffer from this condition die from it if properly treated.

Lewis was found guilty at the Assizes of manslaughter, because he did not supply his child with proper medical attendance, such attendance being one of those things that it was necessary for a parent to supply to his child when ill. The case went to the Court of Appeal, but the Chief Justice's ruling was sustained.

In a case which occurred in this city last January a woman was said to have some condition which was described by the irregular practitioner who had attended her, when he was called as a witness, as arising from an impingement on a nerve which passed out of the spinal column and for which he gave her a large number of treatments for the purpose of getting the bones of her spine into alignment. She died rather suddenly and the neighbors reported the case to the police, and upon inquiry I thought an inquest had better be held. I, myself, examined

this poor woman's body. There was nothing whatever the matter with her spine or spinal column. There was no impingement on any nerve.

The other members of the Committee also presented their views, and we trust to be able to publish them in detail at a later date. Dr. Wishart spoke on the necessity of a high grade general medical education for one intending to devote himself to special work. Dr. C. L. Starr dealt with the question of Orthopaedic Surgery; Dr. Fitzgerald, Bacteriology and Allied Sciences; Dr. A. A. Macdonald, Life Insurance; Dr. Bruce, Military Surgery; Dr. C. R. Dickson, Electro-therapeutics. Dr. Howland discussed the necessity of a five years' course and pointed out the ignorance of the untrained practitioner. Dr. J. H. Elliott took up the subject of untrained scientific studies.

In presenting these special viewpoints the members of the Committee emphasized the necessity of a thorough training in general medicine, no matter to what special branch one might later devote oneself.

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### **Magnesium Chloride in Therapeutics**

Rosenblith relates clinical experiences which have led him to the same conclusions as to the efficacy of magnesium chloride that Delbet has reached by experimental research. Rosenblith gave it by subcutaneous injection in April, 1913, to relieve a very painful case of deforming rheumatism, and the results were extremely encouraging. In the last few months he has been using it in dressing wounds, and with most excellent results. It seems to increase the opsonic index and generate substances antagonistic to proliferation of bacteria.—*J.A.M.A.*

## Reports of Societies

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### ACADEMY OF MEDICINE, TORONTO

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*Report of the Patriotic Relief Committee in Association with the Toronto and York County Patriotic Fund Association.*

On August 29th, 1914, a general meeting of the Academy of Medicine resolved to offer the services of the Fellows to attend, free of charge, the needy dependents of our soldiers, not as a charity, but as a patriotic duty. The offer of the Academy was gratefully accepted by the Toronto and York County Patriotic Fund Association, and a Patriotic Relief Committee was appointed, with Lieut.-Colonel Fotheringham as chairman, to direct the carrying out of the work. The Patriotic Fund Association established a medical bureau with offices in the Medical Health Department at the City Hall. Miss Forsythe was appointed in charge with a staff of nurses to assist in the relief work. A circular letter was issued by the secretary of the Patriotic Fund Association to the medical profession of the city, asking for volunteers. To this over eighty physicians responded, sixty of whom were Fellows of the Academy.

As Dr. Fotheringham and all the members of the original Committee had left on active service, a new Committee was appointed by the Council on April 20th, 1915.

Owing to the continually increasing numbers of soldiers in the different contingents being raised and the increasing sickness with the advent of the hot weather, it was found necessary that there be a larger number of those volunteering to give free medical relief. Your Committee, therefore, made a further appeal by a card forwarded to those of our Fellows who had not already sent in their names. A hearty response was forthcoming, increasing the number of volunteers to 195. In addition to this, 45 others offered to attend free of charge the needy dependents of soldiers' families among their own patients, making a total of 240 at present on the list of physicians at the Medical Bureau.

Sixty-one Fellows of the Academy are on active service.

It should be clearly understood that free medical services have been asked only for those who are in actual need, as ascer-



tained by careful investigation in each case by the Patriotic Fund Association, and for families that are receiving assistance from the fund, and then only for the purpose of supplementing the work of hospitals, clinics and other agencies ordinarily available for medical treatment.

In order to facilitate the work the city was divided into districts, so as to obviate as far as possible the calling of doctors a long distance from their own homes. Moreover, the doctors were classified according to the work—medical, surgical, obstetrical or special—that they were prepared to undertake. The Medical Bureau was instructed in arranging for medical attendance to avoid as far as possible any interference in the relations between families and their ordinary medical attendant.

To summarize—195 Fellows are assisting in relief work; 61 Fellows are on active service; 127 Fellows not yet doing relief work.

A very large amount of work has been accomplished during the year, which has been the subject of appreciative recognition and comment by the Patriotic Fund Association. During the year ending Oct. 1st, 1915, 1,149 cases were reported to the Medical Bureau, and some 550 obstetrical cases received free attendance. This probably does not represent more than half the work actually done, as a great many dependents have applied directly to their physicians, who have attended them without reporting to the Medical Bureau. It is also quite impossible to compute the number of visits represented by these cases, but it is apparent that those who have given their services have contributed a very large item to the work being carried out by the Patriotic Fund Association.

Sixty-six chemists have offered to supply drugs free of charge.

The burden of relief work has borne very heavily upon those of our confreres whose practices are in the more congested districts of the city, and your Committee desires to record their grateful appreciation of the readiness and cheerfulness with which they have undertaken the very onerous work, especially of attending obstetrical cases.

We beg herewith to submit a detailed list, obtained from the Medical Bureau, of the doctors who have volunteered their services and of the number of cases attended by each.

In order that a more complete record may be kept of the work, your Committee would urge upon those who are attending cases applying to them direct to report the same to the Medical Bureau.

The work of medical relief is steadily increasing, keeping pace with the recruiting of more soldiers, so that there is an urgent necessity for still larger numbers of the profession to assist in distributing the burden. The rapid increase is shown by the fact that during July and August, 1915, 477 cases were reported to the Bureau. A further appeal, therefore, is being made for volunteers, and it is hoped that every Fellow of the Academy will do his duty, not alone in giving assistance to the needy dependents of those who are offering their lives in our behalf, but in order to lessen the load which is now being borne on too few shoulders.

One hundred and twenty-seven Fellows of the Academy have not yet volunteered.

In order to organize the work for the coming winter, the Council of the Academy has appointed a number of those most actively engaged in relief work in an advisory capacity to the Patriotic Relief Committee. This Advisory Committee at present consists of Drs. Sneath, Eadie, East, O'Hara, McNicholl, Carveth, Heggie, Hawkins, Hamlin, Jordan, W. T. Hamilton, T. B. MacDonald, McNamara, E. A. Macdonald, Plews, Phipps, Tuck, Conboy, Corrigan, Alexander, Downing, Allan, Adams, Niddrie, Ruppert and Shiell.

The Bureau has attempted by an investigation of the circumstances of each case to prevent abuse of the generous offer of medical relief, but your Committee believes that this aspect of the situation might be further safeguarded by having representatives of the Academy on the Social Service Committee, which does the investigating.

To carry out the work of medical examination of applicants to the Patriotic Fund for relief, a Board of Examiners has been formed from among the Fellows of the Academy to report on the physical condition of cases referred to them through the Patriotic Fund Association.

To assist in carrying out and to equalize the work during the coming winter, we would suggest that physicians in the districts where few cases apply for relief might associate themselves with their overburdened confreres, and also that fourth and fifth year medical students might be mobilized to do detail work under the direction of practitioners.

In addition to the relief of dependents beforementioned, other duties have had to be undertaken—(1) Medical examination of applicants to the Patriotic Fund for pecuniary assistance on account of disability, and (2) medical attendance on disabled soldiers who have returned from the front.

The investigation and treatment of cases of disability from wounds, injury or disease among soldiers returning from the front is becoming a problem of increasing importance, which is receiving the attention of the authorities, and for which the co-operation of the doctors has been sought.

In view of the dangers and hardships which our soldiers are undergoing in defence of our country, and for the establishment of those principles of freedom, justice and humanity—which we hold dearer than life itself—it is unnecessary to emphasize the patriotic duty devolving upon each one of us to do all he can to bring health and comfort to their needy dependents.

The response of the Fellows during the past year is sufficiently indicated in the report we have the honor to present, and your Committee looks forward with confidence to the support necessary to carry out the even greater work which confronts us during the coming winter.

All of which is respectfully submitted.

H. B. ANDERSON.

*Chairman.*

October 4, 1915.

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### PROCEEDINGS OF THE MEDICAL SECTION, ACADEMY OF MEDICINE, TORONTO

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The regular monthly meeting of the section of medicine was held on November 9th, with Dr. Thistle in the chair.

MYCOSIS FUNGOIDES.—Dr. H. B. Anderson reported a case of mycosis fungoides in a barber of thirty-eight years of age. The illness began seven or eight years ago and ended fatally quite recently. The first lesion was an erythematous eruption over the left side of the forehead and left cheek. In one year this eruption had extended over the whole chest and abdomen. It was in the form of macules measuring one-half to one inch in diameter. For some years subsequent to this the eruption continued to disappear and reappear, the greatest interval of freedom being one and three-quarter years. During the later periods of the disease more of the body surface became involved and large excrescences appeared. During the last year the lymphatic glands became enlarged, especially in the inguinal regions. These glands were hard, but were not tender or inflamed. The eruption was itchy, but at no time was there any ulceration or weeping. The general health was excellent



until the later stages. The blood showed only a slight secondary anamia and the Wassermann reaction was negative. The diagnosis was definite. As to the nature of the disease, there was no agreement. The microscope shows it to be a dense mass of lymphoid cells in a delicate stroma. It was probably infective in origin and a number of organisms have been described. It may be related to the leukæmias, but some think it to be of the nature of a sarcoma. The treatment was unsatisfactory and the disease was fatal. Potassium iodide and arsenic were commonly used, but X-rays and radium usually gave better results. Dr. Trow agreed in the diagnosis and stated that he had seen several cases in New York but none in Toronto. Dr. F. C. Harrison had seen radium used at the London Radium Institute with a certain amount of success.

SUB-ACUTE COMBINED DEGENERATION OF THE CORD.—Dr. Goldwin Howland showed two cases of sub-acute combined degeneration of the spinal cord. In the first case the diagnosis was definite, but in the second was doubtful. In the first case the disease began eighteen months ago with numbness in the hands and feet. This was followed by difficulty in walking and weakness. The cranial nerves were normal. The grips were weak and the leg movements weak. The knee-jerks were very brisk. There was knee clonus, ankle clonus, and an extensor response of the great toe on either side on stroking the soles of the feet. There was a slight degree of anæsthesia up to the 12th dorsal segment, and a certain degree of loss of the sense of position in the hands and feet. There was also some difficulty in controlling the movements of the bowels. The blood cultures and the Wassermann reaction were negative, but there was a diminution in the red blood cells and the hæmoglobin.

In the second case the disease began two years ago with numbness in the hands and feet. There was now rigidity, ankle clonus, brisk knee-jerks, and an extensor response of the great toes. There was some disturbance in sensation from the 8th dorsal to the first lumbar segment. This sensory loss was dissociated, pain, heat, and cold being lost while touch was present. There was bronzing about the eyes. Faint systolic murmurs were present at the pulmonary and mitral areas. The red blood corpuscles were 3,200,000. There was a neurofibroma in the arm from which a portion had been removed for study under the microscope. The blood showed a chronic bacteræmia. There were many possible diagnoses and these were left for the discussion.

Dr. G. W. Ross said that he had seen this second case six or seven months ago, and had made a blood culture which showed a hæmolytic streptococcus. The condition of the cord, whatever it might be, was considered to be infective in origin as was also the neurofibroma in the arm.

Dr. Julian Loudon considered that all the symptoms could be due to neurofibromata, and that the case was indeed one of so-called Recklinghausen's disease, in which pigmentation or bronzing of the skin was a characteristic feature. In these cases the tumors grew upon the spinal roots and affected the cord by pressure. The touch was not lost because it had a number of tracts by which to ascend. He had previously seen such a case and thought that the advisability of an operation should be considered in order to prevent any further damage to the cord.

A discussion then arose as to the relation of pernicious anæmia to subacute combined degeneration of the cord. Dr. Loudon thought that they were due to one underlying cause, and that either one or both might be a manifestation of this common cause. Dr. Ross considered that the streptococcus picked out the tissue producing the blood cells as well as the central nervous tissue. In some cases there might be a double infection. Dr. Howland agreed that subacute combined degeneration and many of the anæmias were due to infections, but saw no reason for dropping the name of subacute combined degeneration as had been suggested. In the present state of our knowledge in regard to the bacteriology, there was no satisfactory name to substitute.

**RADIUM TREATMENT OF KELOID.**—Dr. F. C. Harrison exhibited a patient who had been treated by Dr. W. H. B. Aikins and himself for keloid of a severe degree as the result of a burn. Photographs of the condition before treatment were shown. There had been fixation of the small joints and wrist joint of the left hand. As the result of radium treatment the keloid tissue had largely disappeared and mobility of the joints was almost as free as normal. The patient now had a useful hand, whereas, before, she was unable to use it. Treatment was to be continued. The X-ray had previously been used while she was in the General Hospital, but with no effect except the production of a dermatitis. Dr. Ross wished to know if the dosage of the X-rays had been measured, as he had seen cases successfully treated by X-rays.

**PYOPNEUMOTHORAX.**—Dr. Thistle showed a case of pyopneumothorax. The patient had joined the first contingent of the Canadian Expeditionary Force, and while at Salisbury Plain

had had a pulmonary hæmorrhage. It was then discovered that he had a pyopneumothorax. Two weeks ago, 150 ounces of fluid was removed from the left pleural sac. Now, the fluid was up to the left nipple and could be very well seen with the fluoroscopic screen. There was blowing breathing and the coin sound was present. Formalin was injected into the pleural sac and this treatment was to be repeated. An X-ray plate of the chest was exhibited.

**MITRAL STENOSIS.**—Dr. Paul Scott showed a post-mortem specimen of a heart. The patient was a female of thirty-five, and when first seen in 1905 she was suffering from advanced mitral stenosis. There was a presystolic murmur, cardiac dilatation, swelling of the legs, albumen in the urine, abdominal pain, fever, and abdominal rigidity. A diagnosis of malignant endocarditis with a septic embolus of the kidney was made at this time. Four months later the temperature became normal, the patient improved and married. Four or five years afterwards she began to fail again. Two years ago she had uræmic convulsions. In 1914, one year before her death, she had a series of plural effusions which came on suddenly. A short time ago she died in a uræmic convulsion. The kidneys were granular, and the heart showed an old lesion at the mitral valves, with contraction of the mitral orifice.

The meeting then adjourned.

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### **Poliomyelitis Treated with the Serum of Cured Patients**

(By G. A. Alfaro and J. M. Hitce, *Semana Médica*).—

A boy of seven months with a quadriplegia as well as paralysis of the muscles of the trunk and neck was successfully treated with intraspinal injections of serum of cured patients. The dose was two to three c.c. and eleven injections were given, six were on successive days, the others at intervals of two and three days. Not only did the paralysis disappear but the reflexes and even the tactile sense became normal. This method is absolutely harmless, simple, rapid and efficient. The blood from the immune patient is removed under vigorous asepsis and immediately centrifugated, then placed in an icebox and used within four days. An amount of cerebro-spinal fluid equal to or greater than the proposed injection is removed as a preliminary step.—*N.Y. Medical Journal*.



## Editorials.

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### THE COMMISSION ON MEDICINE

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As is well known, both to the profession and the public, Hon. Justice Hodgins, the Commissioner, has held a number of sessions for inquiry into the practice of medicine in Ontario. The judge has already done considerable work and will probably give judgment in the near future.

We understand that all parties who have appeared before the Commissioner have received a patient and courteous hearing. We are very glad that the representatives of the regular profession, through various societies and organizations, have expressed their opinions in a very intelligent, able and dignified manner.

We publish in this issue portions of the statements of many of those who appeared before his Lordship. Although it is not a complete report of the different addresses still we think we are giving the gist of the opinions of the various organizations.

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### THE ONTARIO MEDICAL ASSOCIATION

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We are very glad to be able to report that the officers of this Association have already commenced to make their preparations for the meeting of 1916, which will be held in Toronto, probably in the month of June. Its President, Dr. H. B. Anderson, has plenty of organizing ability along with lots of energy,

and he and his co-workers hope to make the next meeting one of the best, if not the best, in the history of the Association.

We desire to repeat something which was kept prominently in view during the early years after the organization of this Society. The organization committee in its statement to the physicians of Ontario said: "It is well known that the State Medical Societies of the neighboring Republic have contributed largely to the interest and success attending the meetings of the American Medical Association. In like manner it is reasonable to assume that a vigorous Ontario Society would greatly assist the Dominion Medical Association."

For a time these two great bodies were not working together as harmoniously as many friends of both desired. We have now pleasure in stating that all difficulties have been removed and the relationship of the Dominion and Provincial Associations will be more cordial in the future than they ever were in the past. Such being the case we have great reason to hope and believe, as years roll by in the future, that each will be able to assist the other in many ways. Certainly every one in the Province of Ontario should take an equally deep interest in both of these Societies.

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#### A.M.C. WORK

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We are receiving very satisfactory reports regarding the work which is being done at the front. The wounded are being picked up as rapidly as possible and carried to the Regimental Aid Posts by stretcher bearers. From there they are passed

steadily through the Field Ambulance Advance Dressing Stations, and from there in turn are carried to the Casualty Clearing Stations, a large amount of this work being done by motor ambulances also. They remain at the Casualty Clearing Stations until they are fit to proceed further, and are then placed on the hospital trains, which are provided with nurses and doctors, and taken to the various Base Hospitals. A writer in the *British Medical Journal* tells us that he timed the loading of one hospital train. The train reached the station at a quarter to one, p.m., and by two p.m. was ready to start on its return journey; meantime 450 patients had been placed in the train beds, the actual time occupied in transferring them from the ambulances being less than an hour—to be precise, fifty-eight minutes. The writer was astonished when he found the total was so high, because throughout the process of loading there was no appearance of hurry.

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#### CANADIAN WOUNDED IN ENGLAND

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In an article from the C.M.O. in the *British Medical Journal*, we find some interesting information about Canadian Hospitals and the arrangements made for the wounded, both British and Colonial. In the middle of October there were no less than five Canadian Hospital Units either with the Mediterranean forces or on their way there, and these wholly irrespective to the presence or absence of any Canadian troops in that field of operation.

For a time during the earlier operations, however, it was deemed good policy that the soldiers from across the ocean should be scattered through



the Old Land, and should be cared for as special, and as it happened frequently, as honored guests. The wounded have appreciated the wonderful kindness received in various parts of England, and they greatly enjoy the English countryside as well as the kindly British hospitality. The writer says this wonderful hospitality lavished in many a luxurious country house on our convalescent soldiers has left an irradicable impression.

We are told there is another side, however; and that early in August Sir Robert Borden, when in Manchester and its neighborhood, wished to visit Canadians in the hospitals he found that twenty-seven Canadian soldiers were distributed between twenty-four hospitals. This isolation had a somewhat depressing effect on many of the wounded.

Mr. Waldorf Astor has consented that the hospital in his grounds at Cliveden be Canadian, as regards both its staff and patients. The Moore Barracks Hospital, the Shorncliffe Military Hospital and the Tent Hospital at St. Martin's Plain are staffed by the C.A.M.C., and have almost exclusively Canadian patients. The Canadian War Hospital at Walmer takes in only Canadian patients. Helena Hospital at Shorncliffe has wards exclusively for Canadians. All tuberculous patients from the C.E.F. are sent to Pinewood, Wokingham. Arrangements are also being made for special hospitals for 1, nervous diseases; 2, eye, nose and throat diseases, which will be added to from time to time. The Grand Hotel at Ramsgate will also soon be opened as a hospital for special conditions and diseases.

There are many Canadian patients now being treated in various parts of the country, some indeed

having been lost so far as the Canadian authorities are concerned. Since last spring convalescent non-commissioned officers and men from the hospitals in London have been gathered together at Bromley Park. Many of those from the other parts of England are at a larger hospital at Monks, near Shorncliffe. Most of these convalescents have been in tents, but on account of the cold autumn weather different arrangements have been made for them. About 600 Canadian convalescents have been transferred to huts at Woodcote Park, Epsom. Hillingdon House, Uxbridge, is being used as a convalescent annex for Cliveden. The Friendly Societies Convalescents Hospital at Dover, the Glack Convalescent Hospital at Deal, Mrs. Flemming's Convalescent Hospital at Luton House, Selling, and Lady Northcote's Home, at Eastwell Park, Ashford. Many homes have been thrown open specially for Canadian officers, including one at Nuneham Park, Oxford, the home of the late Colonial Secretary, Mr. Harcourt; Holme Pierrepont, given by Lord Manners; Merlewood, Virginia Water, the home of Mr. McMaster, M.P., and the Moorings, Sunningdale, given by Mr. Wills.

## NEWS ITEMS

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The annual meeting of the Brantford General Hospital was held Oct. 28, the principal function being the graduating exercises of the Training School for Nurses.

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At a meeting of the Ladies' Board of the Western Hospital, Toronto, held November 1st, it was decided to erect a Nurses' Home, to be called the Edith Cavell Nurses' Home, as a memorial to the heroic nurse who was murdered, not by drunken ruffians, but by a properly constituted German court.

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An open meeting for the graduating exercises of the Training School for Nurses, Class 1915, was held October 15, in the waiting rooms of the Wellesley Hospital.

All the nurses, with their friends and many others who have been interested in the hospital since its inception, were pleased at the great success of the function, especially as it was the first of the sort in the institution, and those graduating had been in the hospital from its first year, that is, had taken the full three years' course of training. Following is the list of graduates: Miss O. E. Bastedo, Miss E. M. Hogaboom, Miss M. E. Duncan, Miss L. K. Stinson, Miss G. B. Herod, and Miss C. C. MacNeill, Toronto; Miss R. R. Downey, Whitby; Miss J. Simpson, Brucefield; Miss M. W. Ferguson, Sault Ste. Marie; and Miss A. M. Stedham, Oshawa.

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It will be remembered that shortly after the war commenced Mrs. Arnoldi, a Canadian by birth, placed her house in Kensington, London, England, at the disposal of the War Office. The offer was accepted and the Roland Gardens Hospital for officers was properly organized. Up to October 15, 1915, more than 200 officers, including about 50 belonging to the Canadian Expeditionary Force, had been cared for. It is well equipped, and has given such satisfaction that Sir Albert Keogh, Director-General of the Medical Services, has asked that it be kept open for at least another year. Their Majesties the King and Queen visited the hospital; the Princess Royal has sent a number of gifts to date, and the Duchess of Argyle has offered to entertain



officers, who have been in the institution for a few weeks, during their convalescence on her estate in Scotland.

Miss Florence Wey, the assistant matron, came to Canada, and visited Toronto November 1st. She says the institution is in want of funds, and asks those who care to contribute to send their funds to the Royal Gardens Hospital through the Bank of Montreal at Montreal.

### **The Salary of the M.O.H.**

The Committee appointed by the Ontario Health Officers' Association to consider the salaries of the medical health officers of this Province, reported that the minimum reasonable salary for "part time" men be as follows: 1. County municipalities, \$250 per annum. 2. Incorporated villages up to 1,000 population, \$150 per annum; after that \$50 per annum for each 1,000 of population or major portion thereof. 3. Towns, for the first 1,000 of population, \$100 per annum, and \$50 per annum for each subsequent 1,000 of population. 4. Cities having a population under 20,000, \$1,200 per annum.

The Committee also recommended there should be "full time" men in all cities, and then the salary would be a question to be considered by the city and the M.O.H. at the time of appointment.

### **Addressing of Mail for Soldiers**

In order to facilitate the handling of mail at the front and to ensure prompt delivery it is requested that all mail be addressed as follows:—

- (a) Regimental Number .....
- (b) Rank .....
- (c) Name .....
- (d) Squadron, Battery or Company .....
- (e) Battalion, Regiment (or other unit), Staff appointment  
or Department .....
- (f) CANADIAN CONTINGENT .....
- (g) British Expeditionary Force .....
- (h) Army Post Office, LONDON, England .....

Unnecessary mention of higher formations, such as brigades, divisions, is strictly forbidden, and causes delay.

### Re Packing of Parcels for Soldiers at the Front

The public is urged to exercise every care in packing parcels for the troops, as careful packing is absolutely essential to ensure delivery of the parcels in good order.

Parcels sent abroad require a higher standard of packing than is necessary in the Canadian Parcel Post, and this applies with even greater force to parcels for the troops. Those which are inadequately packed run great risk of damage or loss of contents.

Thin cardboard boxes, such as shoe boxes, and thin wooden boxes, should not be used; nor does a single sheet of ordinary brown paper afford sufficient protection. The following forms of packing are recommended:—

(1) Strong double cardboard boxes, preferably those made of corrugated cardboard, and having lids which completely enclose the sides of the boxes.

(2) Strong wooden boxes.

(3) Several folds of stout packing paper.

(4) Additional security is afforded by an outer covering of linen, calico or canvas, which should be securely sewn up.

The address of the parcel should be written in ink on the cover, preferably in two places.

The address of the sender of the parcel should also be stated in order that it may be returned if undeliverable. The contents of the parcel should be stated in writing on the cover.

In the case of parcels sent to the Mediterranean Force, they should be very strongly packed. They should be as nearly round as possible, and well padded with shavings, crumpled paper, or similar protective material. The outer covering should consist of strong linen, calico or canvas, and should be securely sewn up. The use of wooden or metal boxes with square corners is undesirable, as parcels so packed are liable to injure other parcels in transit. No perishable articles should be sent, and anything likely to become soft or sticky, such as chocolates, should be enclosed in tins. Parcels merely wrapped in paper or packed in thin cardboard boxes, such as shoe boxes, cannot be accepted.

P.O. Dept., Ottawa, Can.

### Fall Examinations of Medical Council

The following candidates have passed the Fall examination of the College of Physicians and Surgeons of Ontario: John David Henry White Barnett, St. Mary's, Ont.; John Reginald Boyd, Meaford, Ont.; Robert McDonald Cairns, Ottawa; Bessie Lawrence Collver, Waterford, Ont.; Herbert Joseph Conroy, Peterboro; Joseph Daly, Iona, P.E.I.; John Alexander Dougan, Lindsay, Ont.; Leslie Clinton Fallis, Toronto; Harry Cleaver Purvis Hazelwood, Toronto; Roy Hartley Henderson, Toronto; Frederick Herbert Jeffery, London, Ont.; John Edward Kane, Kingston; Joseph Arthur Labelle, L'Orignal, Ont.; David Easton Lang, Toronto; Albert George Ley, Markham; Donald Sherwood Lighthall, Picton; Oliver John Samuel Little, Seaforth; Leicester Bancroft Lyon, St. Ann's Bay, Jamaica, W.I.; Russell G. MacRobert, Toronto; Charles Gordon Merrick, Kingston; Henry Knight Mitchell, Port Arthur; Edward Wilfred McBain, St. Thomas; Hermann Campbell McCaul, Lakeside, Ont.; Alexander Jamieson McIntosh, Toronto; Thomas Arnold Robinson, St. Mary's, Ont.; William Lipsett Robinson, Toronto; Thomas Joseph Sexton, Port Dalhousie; Issachar Reuben Smith, Toronto; John Alexander Stewart, Brockville; Vernon Harcourt Storey, Port Hope; Frederick Henry Sutherland, Toronto; Wilfred Lorne Tyrer, Barrie; Carl William Waldron, Toronto; James Howard Walmesley, Montreal; George Douglas Chown, Kingston; William Henry Godfrey, Toronto.

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### Toronto Hospital for Incurables

The forty-first annual meeting of the Toronto Hospital for Incurables was held on October 27th. Sir William Mortimer Clark presided at the proceedings which also included the graduating exercises of the Nurses' Training School. The reports of the Superintendent and the Secretary-Treasurer showed the great amount of work which is being done by this most necessary institution. Financially, in spite of conditions brought about by the war, there was a balance on the right side of the books at the end of the year. Mr. Ambrose Kent, Chairman of the Board, spoke of the history and the needs of the Hospital, with the increasing demands being made upon it.

The Medical Report read by Dr. W. H. B. Aikins, Chairman of the Medical Board, showed that in all 318 cases had



been cared for during the year; there being at present 234 patients in the Hospital. Of the cases admitted sixty-one were for chronic nervous diseases, seventeen for cancer, twelve for arthritis, nine for heart disease, a lesser number of patients being admitted for pernicious anæmia, diabetes, Bright's disease, etc. Of the fifty-six deaths ten were cancer patients. Emphasis was laid on the fact that an institution should be provided for a large number of patients, who are not ill enough to require skilled medical care and nursing, but are not well enough to earn their living.

Owing to Dr. Gillam having left to join the R.A.M.C., his work had been taken over by Dr. F. C. Harrison.

Professor Law, of Knox College, addressed the nurses on the qualities essential to the ideal nurse.

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### **The Position of Greece**

Dr. Constantinides, of Toronto, wrote a very interesting letter, which appeared in the *Toronto Star* October 18. He considers that the King of Greece has, during the greater part of his reign, been largely guided by German influences. He has a very high opinion of Venizelos, whom he considers both a patriot and a statesman. Dr. Constantinides thinks that Greece is in many ways greatly indebted to Serbia for its powerful aid in the war with Bulgaria, and is bound in honor and by its higher interests to keep its treaty with that country.

## WAR ITEMS

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Drs. Jupp and D. J. McKay have been made captains, and have gone to the front.

Dr. M. F. Cogoin has been appointed superintendent to the Kingston General Hospital, in the place of Dr. Coom, resigned.

Dr. Norman Wilson, of Bloor Street W., Toronto, is still in the Dardanelles, and reported to be well.

Dr. J. Jordan, of Meaford, has been appointed medical officer of the new 95th Battalion which is being raised in Toronto.

Miss Vivian Tremaine, a Canadian nurse trained in the Quebec Military Hospital, helped to nurse King George after his late accident in France.

After Dr. (Lieut.-Col.) Casgrain became ill at Lemnos, Dr. (Capt.) James Roberts, of Hamilton, took charge of the Medical Corps, and is still in charge.

Dr. Charles VanNorman, of 282 Carlton Street, Toronto, has joined the Army Medical Corps. Since graduating from Toronto University he has had post-graduate experience in hospitals in Toronto, London (Eng.), Pittsburg and Baltimore.

We learned by cable, Nov. 6th, that No. 2 Stationary Hospital, in charge of Dr. (Col.) Shillington, of Ottawa, was moved from France to Serbia. Drs. (Majors) H. C. S. Elliott and R. S. Penticost, of Toronto, were in the unit.

We are much pleased to report that Dr. Walter McKeown, of Toronto, has not left England for the Mediterranean, as his wife and a portion of his family are in England, and his son "Woody" is in Flanders in the British Army. As we mentioned in a former issue, he has a commission in a British artillery battery. We understand that Dr. McKeown has been appointed organizer of the Canadian Medical Pension Board in England.

Two other Canadian units are now being organized, one by the Medical Council of Saskatchewan, and the other by Dalhousie University.

Among those who have gone to England to join the R.A.M.C. are the following from the General Hospital, Toronto: Dr. T. C. Routley left November 7th, and Drs. G. A. McLarty, G. C. McIntyre, A. R. Riddell, R. T. Harris, S. A. Walker and G. M. Dale left November 10th.

As was announced some time ago, Laval University organized a stationary hospital. The authorities decided, however, November 9th, to convert their stationary hospital into a large general hospital with 1,000 beds.

The Second Winter Military Camp in Toronto was inaugurated October 15th. On that day the first hospital train ever seen in Canada, carrying 100 patients from the Military Hospital in Niagara, reached the Exhibition Grounds, and the patients were brought from there to the Camp Hospital. The march of the troops from Niagara Camp to Toronto, ninety miles, commenced October 25th, and was completed November 9th, a battalion leaving Niagara each morning. Medical arrangements for the march were complete and the results satisfactory as there was no serious casualty during the long march. The Exhibition Hospital will serve as a Base Hospital for a large portion of the Province.

The hospital train which came through was in charge of Dr. (Lt.-Col.) T. B. Richardson. Dr. (Major) J. W. S. McCullough, who acted as chief sanitary officer at the Niagara Camp, will act in the same capacity at the Toronto Exhibition Camp.

Dr. (Capt.) Cameron, of Stratford, who was at Lemnos, and is now in Canada on furlough, visited Toronto about the middle of November. He told us that there are two stationary hospitals on the Island of Lemnos, which is thirty miles from the Gallipoli Peninsula. East Alexandria is the Base and Lemnos is the "indirect" Base. The Island's approximation to Gallipoli makes it also the base for supplies for the army, and the magnificent harbor on the Island formed by a large bay cutting into it is constantly filled with ships of all kinds. As a rule, only minor wounds and cases of illness are treated at



Lemnos. Patients seriously wounded are brought to Alexandria or England. The troops fighting the Bulgarians suffer more from disease than from wounds. At one time there were between six and eight hundred men suffering from dysentery. Captain Cameron's tribute to the nurses who had given their lives to the cause was very sincere. He said they died a soldier's death, and nothing the doctors had to do was harder than follow to the graves these heroic women. Captain Cameron also told us that the articles most needed by our men in the East are: two pairs of socks per month each, mosquito netting, toilet articles and condensed milk.

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### University of Toronto Unit

From time to time we have been getting scraps of information respecting the doings of the University unit. Why we should not have received more information is something we cannot understand. This dearth of news appears to have been due to the mysterious operations of the censors to some extent at least. However, we may summarize as follows: they did no unit work for some time after their arrival; the nurses were distributed at different points, and so were most of the doctors. In July a large portion of the unit took charge of the Shorncliffe Military Hospital, whilst a certain number of the doctors were still working on the "Medical Boards." Between July 22nd and October 5th the staff treated over 2,500 cases, took 700 X-ray photographs, and performed about 500 operations. During this period three Medical Boards passed judgment on over 3,000 invalid soldiers. On October 10th they turned over the hospital to No. 5 Canadian General Hospital from Vancouver. They left the hospital to prepare for a journey overseas. They probably left Southampton about October 12th or 13th. They knew, then, that their destination was not France, which, of course, meant some part of the Mediterranean. Most of them thought that they would be disembarked at Salonika.

It was reported some time ago that Dr. John Amyot had gone to France as sanitary officer of the First Division. Many supposed this was a temporary appointment, but we understand that he was taken definitely from the University unit because they needed the full benefit of his expert knowledge on sanitary affairs.

Dr. George Campbell, a nephew of Dr. Samuel McCoy, had a somewhat serious accident through a fall from a horse early in October. We are glad to be told, however, that permanent recovery is expected.

We were very much pleased to receive a cable report on Oct. 28th stating that Dr. (Lt.-Col.) Casgrain, of Windsor, Ont., who was reported not long ago to be seriously ill at Alexandria, is now on his way back to England. News of his condition before sailing was very favorable. So far as we know, Lt.-Col. Casgrain was taken ill while at work on the Island of Lemnos. It would appear that the sanitary conditions at Lemnos and other islands were not much better than those on the Peninsula of Gallipoli. Word came by mail November 26 that Dr. Casgrain reached England Nov. 11, and was resting at the Queen Alexandra Military Hospital for Officers, Grosvenor Road, S.W. London, Eng. He is still weak, but gaining slowly. We were told by cablegram Nov. 27 that he was transferred from the Queen Alexandra to Shorncliffe Military Hospital Nov. 26.

It was reported that Dr. (Colonel) J. A. Roberts had been promoted to the rank of surgeon-general, but no official confirmation has been received up to November 2nd.

## Personals

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Dr. Charles Sheard, jr., wishes to announce that he has removed his offices to 52 College Street.

Dr. F. J. R. Foster, of Stratford, who is leaving for the front, was presented with a gold wrist watch by his fellow practitioners.

Dr. Copp, of Toronto, was operated on for appendicitis on November 1st, at the Cottage Hospital, and on the 9th November was able to sit out on the front verandah, where he viewed the parade.

Dr. J. M. Robb, of Blind River, was elected a member of the Ontario Legislature for Algoma by acclamation, Oct. 25, to take the seat vacated by Mr. Albert Grigg, the new Deputy Minister of Lands, Forests and Mines.

Dr. Alex. McKay, Chief Medical Inspector of Toronto Public Schools, was deputed by the Board of Education to visit and inspect some of the open-air and forestry schools of the United States, and study the methods of educating them. He left Toronto about the middle of October and expected to return the second week in November.

Dr. D. E. Staunton Wishart, R.A.M.C., is convalescing from an attack of pyrexia, in the Bulkley Convalescent Home, Alexandria. He has been mainly occupied on a "drifter" in conveying wounded and sick from the peninsula to hospital ships.

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## MARRIAGES

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Dr. William J. Kilgour was married to Mrs. G. A. Harper, Oct. 27.

Dr. Harold Ball, of 178 Sherbourne Street, Toronto, was married to Miss Muriel Sparks, Oct. 28.



## Obituary

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### MRS. ALLEN BAINES

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We have to announce with very deep regret the death of a singularly attractive, good and useful woman, Mrs. Allen Baines, of Toronto, which occurred November 1st, after a brief illness. In about a year after the marriage of Dr. and Mrs. Baines a baby boy came. He, unfortunately, died when about ten months old, somewhat suddenly, in England. If this child had lived he would now be a man of twenty-five years of age. Dr. Baines' many friends in all parts of Canada, and also England, have no words to express their sorrow and grief, but their deepest sympathy has gone and is going to him in his bereavement.

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### SIR CHARLES TUPPER, BART., M.D., LL.B.

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It is perhaps difficult for the present generation of doctors to realize the fact that Sir Charles Tupper was for many years one of the best-known medical practitioners in Canada. He was born July 2nd, 1821, at Amherst, N.S. He received his medical education at the University of Edinburgh, taking M.D. in 1843. After graduating he returned to his native town and commenced general practice. He had no "waiting days," as a large practice came to him within a few months. He devoted himself entirely to practice for thirteen years, when he entered the Local Assembly of Nova Scotia as member for Cumberland. He continued practice, however, until he became Premier of Nova Scotia in 1864, after which time he did not engage in active work although he did occasional consultation work up to 1890. He was a delegate to the Confederation Conference in 1864, and took a very prominent part in its proceedings, which resulted as is well known in the confederation of all the Provinces of Canada in 1867. He was, therefore, known as one of the Fathers of Confederation, and was the last survivor. He gave up active politics about 1900, and since that time has lived most of the time in England. His health was mostly good until a few months ago, when he had a serious illness in August. One

of his grandsons, however, who reached Canada about Oct. 20th, stated that Sir Charles had quite recovered his health before he left England. News came by cablegram, Oct. 30th, that Sir Charles died that day in his 95th year.

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**W. G. GRACE, M.R.C.S., Eng., L.R.C.P., Edin.**

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Dr. Grace, the greatest cricketer that the world has ever known, died October 20th, aged 67. He was born in Gloucestershire in 1848; qualified to practise medicine and surgery in 1879, and practised medicine in Bristol from 1879 to 1899. Of course we in Canada knew him as a cricketer, and not as a practitioner of medicine. He commenced to play in the more important matches when he was about fifteen. He played for Gloucestershire from 1870 to 1900. In 1872 he came with Fitzgerald's English team to America, Grace being even at that time the greatest of English cricketers. At the match in Toronto against 18 Canadians, Grace's score was 142. His batting record altogether included 217 "centuries," the majority of which were secured in first class matches. He was also a great bowler and good on "the field." During his career he published three books on cricket and kindred subjects in 1891, 1899 and 1900, all of which had a large sale largely on their merits, but especially because they were written by "our W. G." During the last few years he lived in Kent, not far from the old county cricket grounds close to South Canterbury, where the cricket festival known as "Canterbury week" was celebrated annually for a long time. He was married, and left two sons—one a captain in the Royal Navy, the other a captain in the Royal Engineers.

In an "appreciation" by Sir Conan Doyle, M.D., we find the following:—

"Those who knew him will never look at the classic sward of Lords without an occasional vision of the great cricketer. He was, and will remain, the very impersonation of cricket, redolent of fresh air, of good humor, of conflict without malice, of chivalrous strife, of keenness for victory by fair means, and utter detestation of all that was foul. Few men have done more for the generation in which he lived, and his influence was none the less because it was a spontaneous and utterly unconscious one."

# The Harrison Act

is a step forward in the cause of right living; it is a stepping stone toward the elimination of one of the great social evils, drug addiction. But though it is intended as a barrier against the further creation of drug fiends, this law is still limited in scope.

How about the caffein habit? This drug in coffee saps the vital energy of countless thousands who do not realize that it is a common cause of many ills.

Doctor, have you given sufficient attention to those of your patients for whom coffee is contraindicated?

Obedience to your order, "No coffee," will be most easily assured if you suggest a change to

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In so doing you will not only hasten the recovery of your patient, but assist in the realization of the humanitarian principles embodied in the Harrison Act.

Postum, a wholesome, nutritious food-beverage totally devoid of caffein or other drugs, is made by roasting whole wheat with a small percentage of wholesome molasses.

It resembles rich coffee in appearance and snappy taste and is the perfect table beverage for those who should not use tea or coffee.

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The *Clinical Record*, for Physicians' beside use, together with samples of *Instant Postum*, *Grape-Nuts* and *Post Toasties* for personal and clinical examination, will be sent on request to any Physician who has not yet received them.

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Canadian Postum Cereal Company, Limited, Windsor, Ont.



**HON. W. H. MONTAGUE, M.D., L.R.C.P., Edin.**

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The late Doctor Montague had been in ill-health over ten years, during which time he had considerable trouble from heart disease, with certain kidney complications. He apparently recovered from two or three serious illnesses, but was in very poor health for six months. Between three and four months ago he had a slight stroke of apoplexy. However, it was hoped he was recovering fairly well. On the afternoon of November 13th he had another "stroke" in his apartments at the Alexandria Hotel, Winnipeg, and died in a few minutes.

He received his medical education in the Toronto School of Medicine, and graduated from Victoria University in 1882, and took his Edinburgh qualifications in the same year. During his student days his ability was shown in various directions, but especially as a public speaker was he recognized by many of his friends. He settled in Dunnville on his return from Edinburgh, where he really remained only a very short time (less, we think, than two weeks). He engaged in politics almost at once in conjunction with the late Senator Ferguson, who was one of his strongest and most intimate friends. He was elected for Haldimand County in the Federal House in 1884, and retained his seat for sixteen years. During this time he had places in the Conservative Cabinet as Secretary of State and Minister of Agriculture. While a member of the Government he moved to Hamilton, and remained there for some years. After giving up politics in 1900, he worked in Toronto for the Independent Order of Foresters with Doctor Oronhyatekha. He went to Australia on behalf of that organization in 1903. He returned to Canada in 1908, and removed to Winnipeg in 1909.

He took an active part in politics in Manitoba, and was appointed Minister of Public Works in the Roblin Government a few months before his death. His age was 57.

# The GLEN SPRINGS Watkins Glen on Seneca Lake, N.Y.

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The Glen Springs is situated in a large private park with miles of well-built and graded walks for Oertel hill climbing exercises. Automobiling, Boating, Fishing, Music, Dancing. Well-kept Golf Course, Tennis Courts, Miniature and Clock Golf.

**Our Illustrated Booklets and Latest Reports on our Mineral Springs will be Mailed on Request.**

Correspondence with physicians solicited.

## Raynaud's Syndrome: Raynaud's Disease

O. T. Osborne states that Raynaud's disease is not a distinct entity; it is a syndrome caused by the disturbance of one or more internal secreting glands. There is primarily no real disease of the blood vessels, but the vasomotor control is so abnormally disturbed that most profound contraction of certain blood vessels may occur in different parts of the body, perhaps more or less coincident with abnormal dilatation of other blood vessels. If the contracted blood vessels are peripheral the parts more or less lose their function and show various trophic disturbances. This blood-vessel spasm may occur in the internal organs of the body as well as peripherally, though much less frequently and more difficult of diagnosis. The syndrome is probably due to disturbances of more than one of the ductless glands of the body that have internal secretion, but there is always apparently some disturbance of the thyroid gland, perhaps a diminution of the vasodilator stuff of this gland. Judiciously applied, thyroid treatment improves the majority of cases, perhaps all, and cures some cases. Nitroglycerine is always of temporary benefit and local heat is always of immediate benefit.—*American Journal of the Medical Sciences in N.Y. Medical Record.*

## CORRESPONDENCE

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The Right Way to Treat Frost Bite

MR. EDITOR,—When we consider that half the men in hospitals in Northern France last winter were there on account of frost bite, the knowledge of the best way of treating this injury is surely of great importance. The way in which 99 cases out of 100 are treated is by the old-fashioned method of rubbing with snow. Let me tell you that I believe snow is the worst thing you can put on a frost bite. This treatment is a relic of barbarism, a following out of the old adage, "A hair of the dog that bit you." When I was a boy I read a book, giving the results of the experiments of a physician who had come to think there was not much heat in snow, and had set himself the task of experimenting on rabbits to find out if there were not a better way. He found out that the treatment of the frozen part by hot water was as much ahead of the treatment of rubbing with snow as our electric car is ahead of an old ox team. Two rabbits were taken and exposed for the same length of time to intense cold, until ears or hind legs were frozen, and the result of the experiment in every instance was enormously in favor of the treatment by heat. For instance if the limb treated with snow was months in healing, or sloughed off, the heat-treated one suffered no injury, or was only a few weeks in healing.

When I was practising in Perrytown, I went into the little railway station, and the station master's daughter said to me, "Doctor, your ears are frozen." I asked her, "Have you any hot water?" She answered "Yes," and poured me a cupful out of the kettle on the stove. I dipped one ear in and then the other. The feeling was a feeling of comfort, and no unpleasant effects followed. My ears did not swell, did not peel, were not tender, as I am sure they would have had I followed the usual custom of rubbing them with snow.

I have used this treatment on several patients, and in every case the results were so satisfactory that I was amazed. I know hot water is not always to be had, but other ways of applying heat will suggest themselves.

35 Elm Street, Toronto.

J. M. JOHNSTON, M.D.



# The Spatula is Mightier Than The Sword—

especially when wielded by the Physician, in  
Pneumonia, for example, to spread on previously  
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*Antiphlogistine*  
TRADE MARK

“About five per cent of all physicians still adhere to the theory that pneumonia, being a so-called self limited disease, admits of no active treatment, but requires only good nursing and patient watchfulness. The other ninety-five per cent, out of their individual and collective experiences, are convinced that, with prompt treatment of the right kind, pneumonia can be often greatly lessened in its severity, shortened in its course, or (as some affirm) actually aborted. We are of the opinion that about seventy-five per cent of the physicians believe there is no single or similar remedial measure which equals Antiphlogistine in its prompt effectiveness in the treatment of this disease.”

(From *Pneumonia Booklet* sent on request.)

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Physicians should WRITE “Antiphlogistine” to AVOID “substitutes”

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## Miscellaneous

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### Whooping Cough a Serious Disease

In an address before the New York Academy of Medicine, and reported in the *Archives of Pædiatrics*, issue of August, 1914, John Lovett Morse, A.M., M.D., Professor of Pædiatrics in the Harvard Medical School, made this significant statement: "The relative mortality from whooping-cough, scarlet fever and diphtheria is essentially the same throughout the country, whooping-cough being almost everywhere more fatal than scarlet fever and less fatal than diphtheria. . . . Instead of being a trifling affair, as it is usually considered to be by the laity, whooping-cough is a most serious and fatal disease. 'Any disease which kills 10,000 children per annum is,' as Rucker says, 'a serious one. If bubonic plague were to kill that many children in the United States in one year, the whole world would quarantine against our country. A child dead of whooping-cough is just as dead as a child dead of plague.' "

In the same issue of the journal above referred to, the editor, an undoubted authority, says that "whooping-cough causes more deaths in children under one year than any other infectious disease."

In view of these startling facts, is it not just possible that the profession at large, like the average layman, has been too prone to look upon whooping-cough as an inevitable concomitant of childhood, and to underestimate its seriousness?

The Bordet-Gengou bacillus is recognized as the specific cause of whooping-cough, and the most rational method of treating the disease is by means of vaccine prepared from cultures of this bacillus. It is pertinent in this connection to refer to two such vaccines which are manufactured and marketed by Parke, Davis & Co. One bears the name of Pertussis Vaccine; the other is designated as Pertussis Vaccine, Combined. The first-mentioned vaccine is indicated in cases diagnosed as pertussis, in suspected cases when a definite diagnosis is lacking, and as a prophylactic. The second is indicated in all cases of pertussis, but especially those which have persisted for some time, such infections being usually of the mixed type. The vaccines are administered hypodermically and are supplied in bulbs, in rubber-capped vials, and in glass syringes. The various packages are fully described in an

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announcement which appears elsewhere in this journal under the caption "The Vaccine Treatment of Whooping-cough." The advantages of the vaccine treatment are succinctly stated in the advertisement, which our readers are advised to consult.

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The Toronto office of the "Storm" Binder is now situated at 578 Dovercourt Road. Telephone Coll. 3030.

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### **The Patient's Consent to Operations**

Medical men are frequently confronted with the individual who prefers "to die a natural death" rather than submit to operation, or who insists on going through life disabled when a simple primary operation would in all probability effect a cure. Eloquence is often wasted on people who imagine that the surgeon wants to satisfy his own curiosity or obtain an operation fee. The latter consideration seldom obtains, for most of these cases are met with in the public hospitals, and with regard to surgical curiosity, we have yet to meet the surgeon who would risk a patient's life or limb to satisfy that craving. With the enormous number of wounded in the country at present, the question of consent to operation is a serious one. A soldier may refuse to submit to an operation that would render him fit for service again, and as far as our knowledge goes, he cannot be coerced. All that the surgeon can do is to point out to the patient the risk he runs of permanent disablement, and of future incompetence in any sphere of life. If this course is not successful the man becomes a burden on the State. At the moment we have the greatest sympathy with men who have been through the battlefields of the world and suffered more than we can realise, but in time our sympathy will probably lose some of its practical application, and will be insufficient to support those who remain disabled by choice as well as those disabled by necessity. It is only fair to the latter that some distinction should be made, and the method followed in France is worthy of emulation. When a patient refuses operation a full report of all the circumstances is drawn up and signed by the patient and the surgeons in charge. When the patient comes to apply for his pension or for relief the report is referred to, and as far as possible, a fair allotment is made. If this were a recognized procedure in this country we would probably see still fewer cases of refusal to submit to operation. We do not suggest that such

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is that The Marvel, by its Centrifugal action, dilates and flushes the vaginal passage with a volume of whirling fluid, which smooths out the folds and permits the injection to come in contact with

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The Marvel Company was awarded the Gold Medal, Diploma and Certificate of Approval by the Societe D'Hygiene de France, at Paris, Oct. 9, 1902.



refusals are common, and indeed we have found our wounded soldiers thorough sportsmen and very anxious to be efficient citizens when their fighting days have been summarily curtailed.  
—*The Medical Press.*

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### **A Progressive Institution**

There is a progressive, wideawake institution in Toronto worthy of the confidence and admiration of every particular surgeon and physician. We have reference to Lynhurst Hospital, 100 Yorkville Avenue.

This hospital is constantly improving to meet the requirements of the most exacting physician or patient. Their operating room was recently re-equipped and made one of the most modern in the province, wherein the surgeon will find everything necessary for the most intricate case, the room being in charge of a highly competent graduate surgical nurse. Then followed the improvement of a special delivery room, a satisfying convenience to the most painstaking obstetrician.

In addition to the modern equipment and facilities of this institution, for the comfort and proper care of its patients, we now find a newly patented hy-lo electric reading lamp, for the convenience of each patient. There are but few hospitals on the continent equipped with this convenience. The profession will truly find in Lynhurst Hospital every needed convenience and accommodation that may be desired, with a careful supervision at all hours.

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### **Diurnal Variations in Arterial Blood-Pressure**

In the *American Journal of Physiology* of May 1, 1915, Weysee and Lutz report a long research, and reach the following conclusions, which are of clinical value:

1. A rise of maximum pressure averaging 8 mm. Hg occurs immediately on the ingestion of food. A gradual fall then takes place until the beginning of the next meal. There is also a slight general rise of the maximum pressure during the day.

2. The average maximum blood-pressure for healthy young men in the neighborhood of twenty years of age is 120 mm. Hg. This pressure obtains commonly one hour after meals. The higher maximum pressure occurs immediately after meals, and the lower, as a rule, immediately before meals.

3. The range of maximum pressure varies considerably in different individuals, but the highest and lowest maximum pressures are practically equidistant from the average pressure of any one individual.



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PUT UP IN BOXES OF ONE HUNDRED CAPSULES EACH

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 Liq. Arsenicalis - - - 2 Minims  
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These combinations are of the *Highest Value as a General Tonic*, and especially for the treatment of convalescents after fevers.

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Malto-Yerbine

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4. The minimum blood-pressure is very uniform throughout the day, and is little affected by the ingestion and digestion of meals. When it is affected a rise or fall may take place. There is a tendency for a slight general lowering of the minimum pressure throughout the day.

5. The average minimum blood-pressure for healthy young men in the neighborhood of twenty years of age is 85 mm. Hg. Thus we get an average pulse-pressure of 35 mm. Hg.

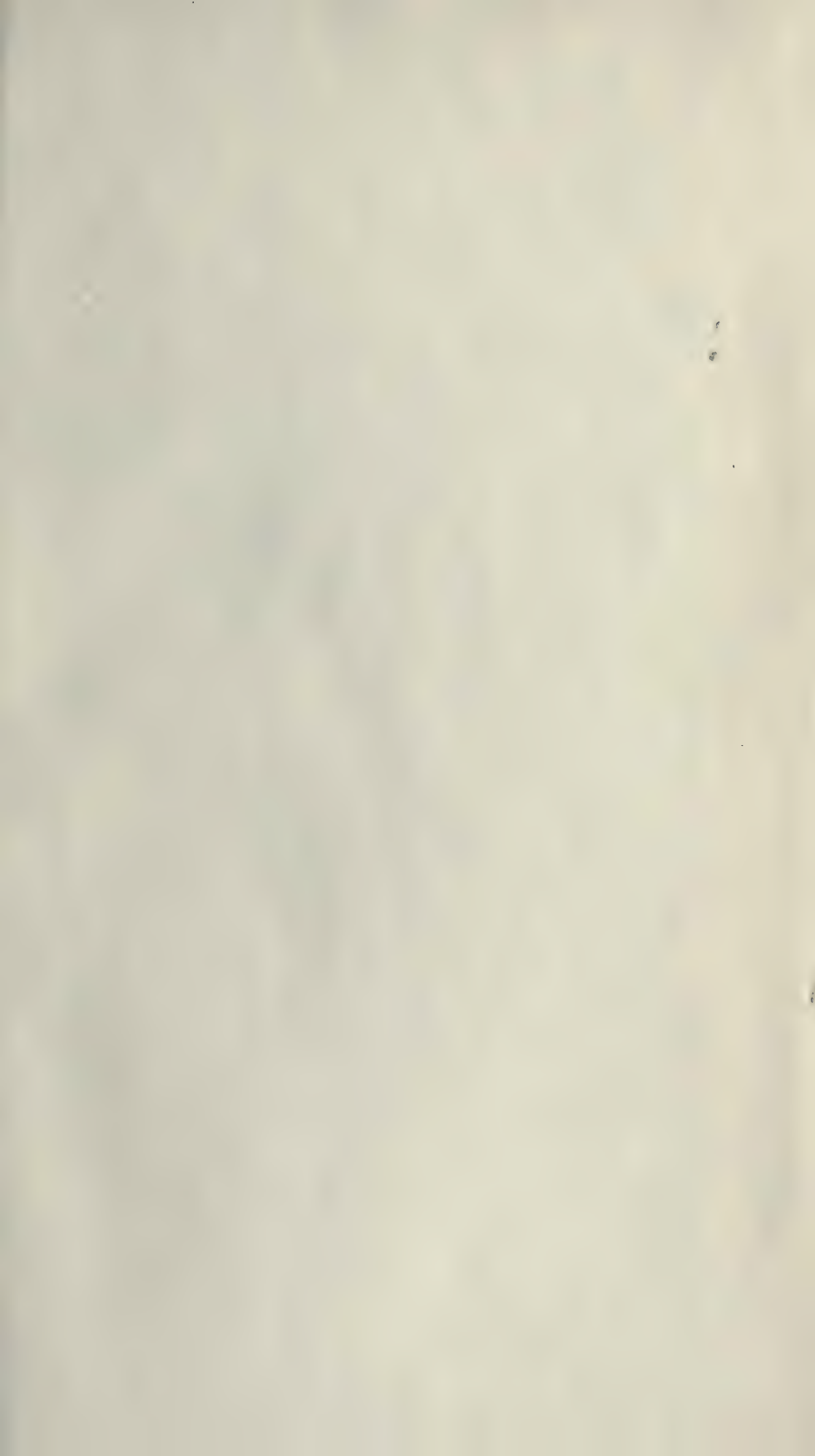
6. Pulse-pressure, pulse-rate, and the relative velocity of the blood flow are increased immediately upon the ingestion of meals. They attain the maximum, as a rule, in half an hour, and then decline slowly until the next meal. There is a general increase in each throughout the day.

7. The average pulse-rate in these investigations proved to be 72 beats per minute.—*Therapeutic Gazette*

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### Transfusion of Blood for the Wounded

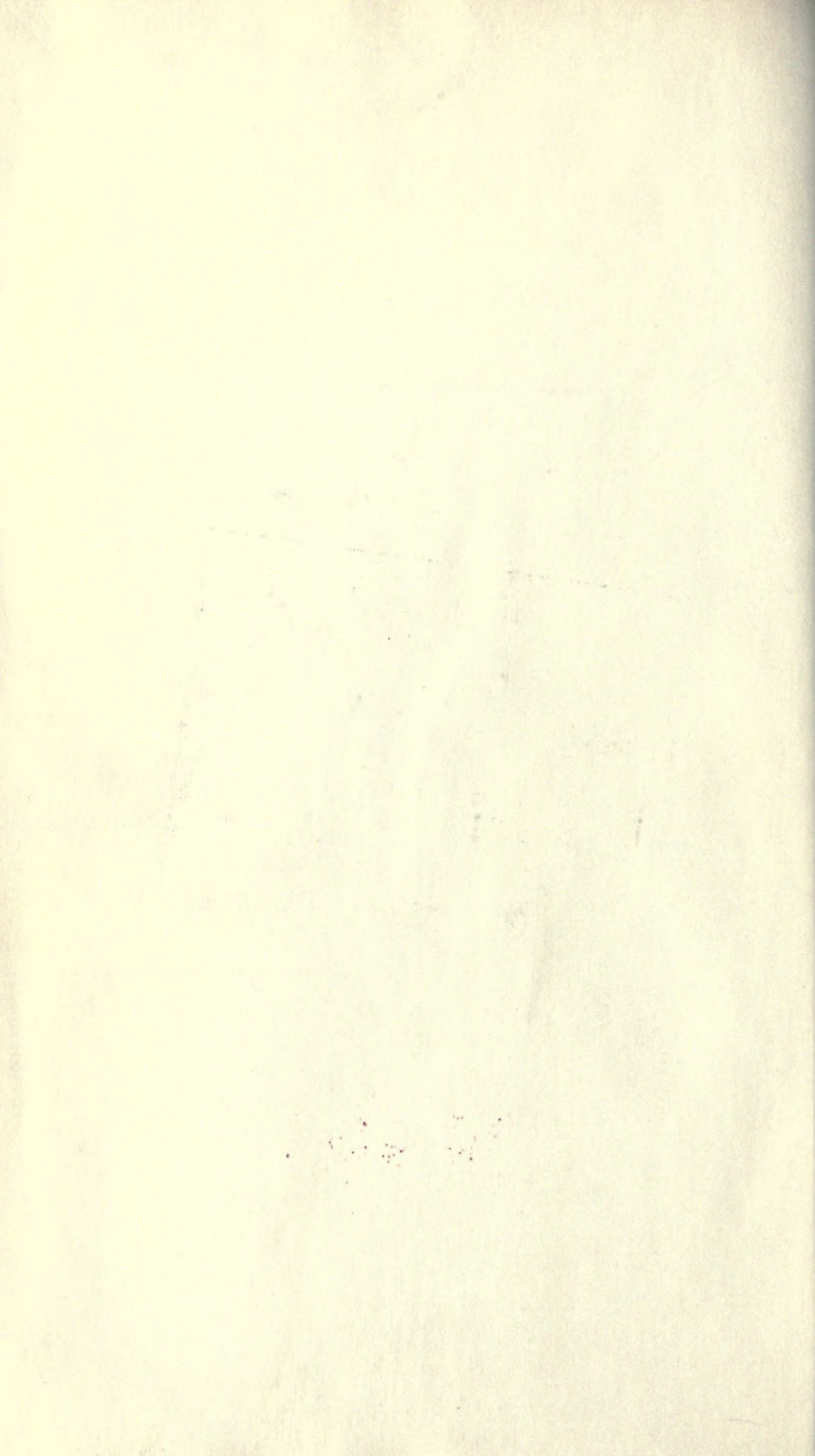
Bérard and Lumière (*Presse Médicale*, Paris) report almost miraculous recoveries of many soldiers practically moribund from loss of blood, after transfusion of blood from another person. They give an illustrated description of their technic and discuss the precautions necessary, and the accidents and incidents that have occurred in their practice or are liable to occur. They are connected with a Lyons hospital, and relate that an advertisement inserted in the daily papers brought them 150 donors in one week. The first to apply was a physician. During the last six months they have been selecting women for the donors almost exclusively, and have never had any difficulty in obtaining all the donors needed. Carrel's technic is followed quite closely. Among the accidents that may be encountered is the finding the radial artery too small to admit the cannula; this is especially liable when the donor is a woman. The diameter of the artery should be estimated beforehand. The donor may experience discomfort or even syncope after a period of pallor, sweating, chilliness of hands and feet, thirst and acceleration of the pulse. When these symptoms appear, hot drinks, grog, tea with rum, should be given, the extremities warmed and the position of the body changed. These measures usually succeed in reviving the donor; if not, the transfusion should be interrupted and saline and camphor injected. They have never had any symptoms indicating hæmolysis in the blood of the receptor. They regard the risk of hæmolysis as a comparatively slight danger in view of the impending death if blood is not supplied from some source.—*J. A. M. A.*













BINDING SECT. JUN 8 1966

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